

# aeromet



Ua/U-b

## aeromet inc.

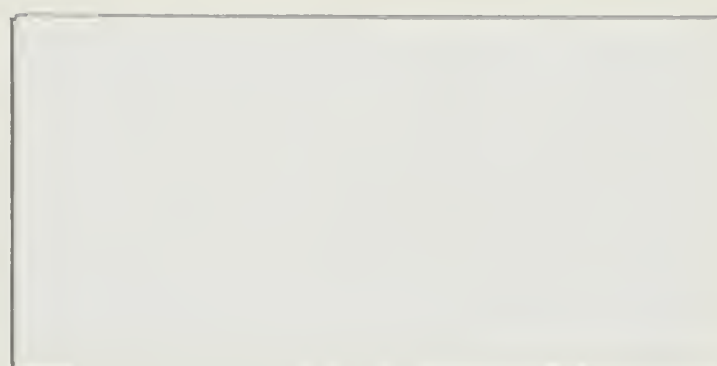
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MONTHLY PROGRESS REPORT NO. 9  
for the period November 1-30, 1976  
to  
ENVIRONMENTAL PROTECTION AGENCY  
REGION VIII

1860 Lincoln St., Suite 900  
Denver, CO 80203

Contract No. 68-01-1946

by

Aeromet, Inc.  
Box FF  
Norman, OK 73070

Utah U-a/U-b Tract



## 1.0 INTRODUCTION

Low level temperature and wind data were collected for November, 1976 at Casper, Wyoming; the Shell Oil Co. Colorado C-b Tract 25 miles west of Rio Blanco, Colorado; Craig, Colorado; Escalante and Hanksville, Utah; Rock Springs, Wyoming; and the U-a/U-b Tract 5 miles south of Bonanza, Utah. The data collection was made using a 30 gm helium filled pilot balloon with a temperature sonde attached, a single theodolite and a TSR-2 receiver/recorder twice a day every other day. The observations were made  $\frac{1}{2}$  hour after sunrise and 1400L.

The pilot balloon had an ascent rate of 500 ft/min and it was tracked by a single theodolite for 12 minutes with the azimuth and elevation angles recorded every 30 seconds on a cassette tape recorder. The tape was transcribed to a pilot balloon form after the observation.

The temperature sonde operated at 403 MHz and the signal was received by a ground plane antenna at least 24 ft. AGL which was attached to the Aeromet, Inc. TSR-2 receiver/recorder. The TSR-2 receiver has a built-in Rustrak strip chart recorder and the temperature was recorded within the range from  $-50^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ . A baseline temperature calibration was performed with each T-Sonde by the adjustment of the recorded temperature to match the thermometer measured temperature next to the transmitting sonde. Once the calibration check was finished the balloon was released with the sonde attached and the temperature was recorded for at least 20 minutes. At the completion of each observation the data were mailed to Aeromet, Inc.

The Monthly Progress Report is divided into seven parts, one corresponding to each of the seven field sites. The collected temperature and wind data are accurate and have not been edited unless otherwise stated in the Pilot Balloon Summary section. However, the obvious errors sometimes found in the recorded azimuth and elevation angles are corrected without mention. For example, the sequence of azimuth angles . . . 76.6, 75.3, 47.8, 73.8 . . . can be corrected without ambiguity. The more ambiguous errors are brought to the attention of the reader if editing has been performed, otherwise, the data are left as recorded and the filtering is left to the individual user. An example is the wind profile for Hanksville on 06/29/76 at 1300 MST found in the Monthly Progress Report No. 4. The azimuth angles starting 30 seconds after the launch and incremented by the same are as follows . . . 109.0, 110.0, 110.0, 281.0, 280.0, 282.0 . . . , while the corresponding elevation angles are as follows, . . . 60.0, 57.6, 58.7, 58.6, 52.7, 44.3 . . . . The wind speed and direction change dramatically over the interval as can be seen in the report since these data were not edited.



## 2.0 DATA SUMMARY

### 2.1 Utah U-a/U-b Tract Field Summary

No major problems were experienced during the month of November. The observer attempted 100% of the scheduled pilot balloon launches resulting in 97% recovery of the temperature data and 94% recovery of the wind data. Equipment malfunctions caused a 3% loss in temperature and wind data with poor weather conditions the cause for the remaining 3% loss in wind data.





## 2.2 Mixing Layer Height

The average mixing layer height was computed for the morning and afternoon based on the morning and 1400L temperature soundings. The balloon release  $\frac{1}{2}$  hour after sunrise is near enough to the minimum temperature to assume the correctness of the calculated mixing layer heights. The afternoon balloon release is generally not at the time of maximum heating and the user of the mixing layer height data must be aware that minor changes in the calculated values can be expected. Without equipping the field sites with minimum/maximum thermometers the extrapolation of the afternoon data can not be justified in establishing a data base for statistical analysis. The approximation of the afternoon maximum temperature would be a "calculated guess" for there are: 1) local effects which are to be determined and would be filtered out with extrapolation, 2) mountain effects which alter the lower 1500m (e.g. downslope effects), and 3) meteorological effects which can alter the expected change in the sounding (e.g. advection, moisture, etc.).

It is felt that to better define the mixing layer height that a variety of "heat island" effects should be viewed. The rigorous method would be to define 15 "heat island" effects ranging from 0 to 14°C and let the user decide which would best serve his needs. However, for these analysis 0°, +5° and +10° "heat island" effects are calculated and listed for the morning and afternoon soundings in the table Average Mixing Layer Height.

The symbol N/D means that no mixing layer height was defined and sfc is the abbreviation for surface.

## 2.3 Stability and Inversion Classification

The temperature and wind data were edited to remove data felt to cause anomalous results in the stability and inversion classification schemes. Only the stations listed prior to the table classifying the inversions were used in the calculations.



### 3.0 DATA PROCESSING

#### 3.1 Printed and Plotted Output

Wind speeds and directions are computed from the azimuth and elevation angles measured while tracking the balloon with the theodolite. The wind speed and direction are plotted versus height and printed out at 30 second intervals. The printed output includes the AGL and MSL height of the calculated wind value and the orthognal components of the wind. The wind profile is also punched on computer cards at 30 second intervals.

The temperature data are processed and plotted with the temperature and the lapse rate per 300 meters versus height at 15 second intervals. Tic marks are placed on the temperature plot at significant levels. A solid line to the right side of the plot indicates the data for that layer are interpolated temperature values. The temperature data are also printed out and punched on cards. The asterisk beside a height value indicates a significant level while a "?" indicates interpolated data.

The temperature data are also processed to produce for each site a monthly summary of inversion layers and lapse rates within the inversions and from the inversion base to the surface by means of the Holzworth classification scheme for inversions (Holzworth, G.C., 1974: "Climatological Data on Atmospheric Stability in the United States" Paper presented at the American Meteorological Society Symposium on Atmospheric Diffusion and Air Pollution, September 9-13, 1974. Santa Barbara, California.)

The temperature and wind data are processed together to produce for each site a monthly average bivariate frequency distribution of wind direction versus wind speed represented in the 500m layer adjacent to the ground. The distribution is presented by the six Pasquill stability classes (A-F) and a summary independent of stability. If the  $\Delta T/100m$  criterion is met but the wind speed criterion is not met, then the

STABILITY CLASS	$\Delta T$ (°C/100m)	WIND SPEED
A	<-1.9	<2
B	-1.9 - -1.7	<5
C	-1.7 - -1.5	<6
D	-1.5 - -0.5	ALL SPEEDS
E	-0.5 - 1.5	<5
F	>1.5	<3

wind data are checked against the criterion for the next stability class, always cascading to the D stability class. Once the wind speed criterion is met the data are classified under the new stability class even though now the lapse rate exceeds the class criterion. For example,



if the  $\Delta T/100\text{m}$  value is 1.7 and the wind speed is 7 m/s, the lapse rate criterion is met for the stability class F, however the wind speed criterion is exceeded. The wind speed is greater than the 5 m/s maximum limit for class E but falls within the criterion of class D, which includes all wind speeds. As a result the observational data with a  $\Delta T$  value of  $1.7^\circ\text{C}/100\text{ m}$  and a wind speed value of 7 m/s are classified under stability class D, not class F.

The data are also punched on computer cards in a format compatible with the STAR PROGRAM of the National Climatic Center, NOAA, U.S. Department of Commerce.



### 3.2 Punched Output

The punched temperature and wind data for each observation are categorized into four groups, each separated by a blank card. The first group begins with a header card listing the station name (3A4), the station elevation in meters (I4), the month, date and year (I6), the observation time (I4), the time zone (A3), the balloon ascent rate in feet per minute (I3), the sampling interval in seconds (I2), the temperature error in °C (F5.1), the T-Sonde I.D. number (I5) and the surface wind speed in kts and direction (2F6.1). A surface wind speed of 180.0 KTS indicates missing surface wind data. The series of cards prior to the first blank card include on each card the elapse time in minutes (2X,F5.1), the height of the balloon in meters AGL (4X,F5.0), the height of the balloon in meters MSL (4X,F5.0), the temperature in °C (4X,F6.2), the change in temperature between standard or significant levels (2X,F6.2), the lapse rate per 300m (2X,F6.2), the difference in the lapse rate per 300m and the dry adiabatic lapse rate per 300m (2X,F6.2), the wind speed in m/s if known (4X,F5.1), and the wind direction if known (3X,F5.0). The cards following the first blank card include on each card the elapse time in minutes (2X,F5.1), the height in meters AGL (4X,F5.0), the height in meters MSL (4X,F5.0), the u-component of the wind in m/s (4X,F6.1), the v-component of the wind in m/s (6X,F6.1), the wind speed in m/s (7X,F5.1), the wind direction (6X,F5.0), the elevation angle in degrees (F5.1) and the azimuth angle in degrees (F5.1). The cards after the second blank card include a header card like before and a series of cards with four groups of the following on each card; the height in meters AGL (F6.1), the temperature in °C (F6.2), the lapse rate °C/300m (F6.2) and a blank space (1X). The cards after the third blank card include a header card the same as described earlier, eight cards with the original digitized temperature data and a flag to indicate interpolated data (20(F3.1,I1)), five cards with the elevation angle in degrees (16F5.1), and five cards with the azimuth angle in degrees (16F5.1). The temperature data are in degrees Celsius and have 50°C added to each value. An elevation angle of 180° indicates a missing azimuth and elevation angle value.

The punched output from the bivariate frequency distribution calculations include a header card as illustrated below,

RESEARCH

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SFC TO 500 METERS

[illegible]







and the punched distribution data for each wind direction under each stability class in agreement with the "star" output. The stability classes are number coded as follows:

STABILITY CLASS	NUMBER CODE
A	1
B	2
C	3
D	4
E	5
F	6
Independent of Stability	7

The station I.D. numbers are as follows:

STATION	I.D. NUMBER
Casper, Wyoming	1
Colorado C-b Tract	2
Craig, Colorado	3
Escalante, Utah	4
Hanksville, Utah	5
Rock Springs, Wyoming	6
Utah U-a/U-b Tract	7

The month and season number codes are as follows:

MONTH	1-12
SEASON	13 = DJF
	14 = MAM
	15 = JJA
	16 = SON
ANNUAL	17



PILOT BALLOON SUMMARY  
Utah U-a/U-b Tract  
November, 1976

November 2	0652	Temperature values were interpolated over the interval from 12 1/4 to 15 3/4 minutes.
	1351	Temperature values were interpolated over the interval from 7 to 14 3/4 minutes.
November 4	0700	
	1400	
November 6	0712	
	1359	Balloon was lost in the clouds after 8 minutes.
November 8	0710	Balloon was lost in the clouds after 7 minutes.
	1357	
November 10	0705	
	1400	
November 12	0704	No temperature data due to transmitter failure.
	1356	Temperature values had to be interpolated over the interval from 11 to 18 minutes.
November 14	0722	
	1356	Temperature values were interpolated over the interval from 11 to 38 minutes.
November 16	0705	
	1402	Temperature values were interpolated over the interval from 12 to 15 minutes.



PILOT BALLOON SUMMARY  
Utah U-a/U-b Tract  
November, 1976

November 18	0707	Temperature values were interpolated over the interval from 8 to 12 3/4 minutes.
	1352	Temperature values were interpolated over the interval from 5 1/4 to 8 minutes.
November 20	0709	
	1400	No wind data due to difficulty with tape recorder.
November 22	0710	
	1440	Temperature values were interpolated over the interval from 9 to 11 3/4 minutes.
November 24	0715	
	1351	Temperature values were interpolated over the intervals from 10 to 13 3/4 minutes and from 21 1/2 to 25 1/2 minutes.
November 26	0712	No wind observations possible due to blowing dust and snow.
	1405	Balloon was lost in the clouds after 9 minutes.
November 28	0810	
	1352	Temperature values were interpolated over the interval from 4 1/4 to 12 minutes.
November 30	0719	
	1348	



# AVERAGE MIXING LAYER HEIGHT

Utah U-a/U-b Tract

November, 1976

## HEIGHT IN METERS

DATE	MORNING			AFTERNOON		
	0'	+5'	+10'	0'	+5'	+10'
2	sfc	100m	250m	450m	900m	2250m
4	sfc	150m	400m	100m	1000m	1500m
6	50m	150m	250m	250m	750m	1300m
8	sfc	100m	200m	350m	750m	2200m
10	sfc	150m	250m	250m	800m	2050m
12				200m	1150m	2000m
14	sfc	100m	450m	300m	1350m	2750m
16	sfc	200m	1750m	sfc	500m	1900m
18	sfc	100m	300m	350m	800m	1800m
20	sfc	50m	200m	sfc	550m	1450m
22	sfc	100m	250m	300m	800m	1500m
24	sfc	100m	150m	300m	750m	2000m
26	1150m	2500m	N/D	50m	2050m	2700m
28	50m	200m	500m	1000m	1750m	2500m
30	sfc	150m	250m	450m	1100m	2100m





CLOUD COVER AND SIGNIFICANT WEATHER

Utah U-a/U-b Tract

November, 1976

<u>DATE</u>	<u>MORNING</u>	<u>AFTERNOON</u>
2	scattered	scattered
4	scattered	scattered
6	scattered	broken
8	scattered	overcast, cirrus
10	scattered	overcast, SC
12	scattered	broken
14	scattered	broken, Cu
16	broken, cirrus	scattered
18	broken, cirrus	scattered
20	scattered	scattered
22	broken, cirrus	scattered
24	scattered	clear
26	overcast, snow, dust	broken, Cu
28	clear	scattered
30	clear	broken, cirrus



\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3313

DATE 11/02/76 TIME 06:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	686.	1.58	0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3319

DATE 11/02/76 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
304.	838.	0.13	-1.41

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3318

DATE 11/04/76 TIME 07:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	838.	0.92	0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3310

DATE 11/04/76 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
114.	152.	0.71	-1.19

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3312

DATE 11/06/76 TIME 07:12MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
38.	1143.	1.07	-1.29

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3306

DATE 11/06/76 TIME 13:59MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
203.	889.	0.01	-1.13



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*****
UTAH UAUB          ELEV 1585 METERS          SOUNDING ID 3308
DATE 11/08/76    TIME 07:10MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

INV BASE          INV TOP          INV DT/DZ          DT/DZ BELOW INV
METERS AGL        METERS AGL        (DEG C)/100M      (DEG C)/100M
0.                495.                2.34              0.0

*****
UTAH UAUB          ELEV 1585 METERS          SOUNDING ID 3309
DATE 11/08/76    TIME 13:57MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

INV BASE          INV TOP          INV DT/DZ          DT/DZ BELOW INV
METERS AGL        METERS AGL        (DEG C)/100M      (DEG C)/100M
76.               133.               0.0              -2.62

*****
UTAH UAUB          ELEV 1585 METERS          SOUNDING ID 3311
DATE 11/10/76    TIME 07:05MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

INV BASE          INV TOP          INV DT/DZ          DT/DZ BELOW INV
METERS AGL        METERS AGL        (DEG C)/100M      (DEG C)/100M
0.                800.               1.20              0.0

*****
UTAH UAUB          ELEV 1585 METERS          SOUNDING ID 3305
DATE 11/10/76    TIME 14:00MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

INV BASE          INV TOP          INV DT/DZ          DT/DZ BELOW INV
METERS AGL        METERS AGL        (DEG C)/100M      (DEG C)/100M
277.              582.               0.18              -1.01

*****
UTAH UAUB          ELEV 1585 METERS          SOUNDING ID 3471
DATE 11/12/76    TIME 13:50MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

INV BASE          INV TOP          INV DT/DZ          DT/DZ BELOW INV
METERS AGL        METERS AGL        (DEG C)/100M      (DEG C)/100M
38.               76.                0.0              -2.97

*****
UTAH UAUB          ELEV 1585 METERS          SOUNDING ID 3464
DATE 11/14/76    TIME 07:22MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

INV BASE          INV TOP          INV DT/DZ          DT/DZ BELOW INV
METERS AGL        METERS AGL        (DEG C)/100M      (DEG C)/100M
0.                381.               1.72              0.0

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*****
UTAH UAUB          ELEV 1585 METERS          SOUNDING ID 3367
DATE 11/14/76      TIME 13:56MST      ASCENT RATE 500 FPM      DATA INTERVAL 15 SEC.

INV BASE          INV TOP          INV DT/DZ          DT/DZ BELOW INV
METERS AGL        METERS AGL        (DEG C)/100M      (DEG C)/100M
76.               152.               0.13              -1.84
*****

UTAH UAUB          ELEV 1585 METERS          SOUNDING ID 3465
DATE 11/16/76      TIME 07:05MST      ASCENT RATE 500 FPM      DATA INTERVAL 15 SEC.

INV BASE          INV TOP          INV DT/DZ          DT/DZ BELOW INV
METERS AGL        METERS AGL        (DEG C)/100M      (DEG C)/100M
0.               267.               1.08              0.0
*****

UTAH UAUB          ELEV 1585 METERS          SOUNDING ID 3472
DATE 11/16/76      TIME 14:02MST      ASCENT RATE 500 FPM      DATA INTERVAL 15 SEC.

INV BASE          INV TOP          INV DT/DZ          DT/DZ BELOW INV
METERS AGL        METERS AGL        (DEG C)/100M      (DEG C)/100M
0.               114.               0.80              0.0
*****

UTAH UAUB          ELEV 1585 METERS          SOUNDING ID 3470
DATE 11/18/76      TIME 07:07MST      ASCENT RATE 500 FPM      DATA INTERVAL 15 SEC.

INV BASE          INV TOP          INV DT/DZ          DT/DZ BELOW INV
METERS AGL        METERS AGL        (DEG C)/100M      (DEG C)/100M
0.               1181.              1.03              0.0
*****

UTAH UAUB          ELEV 1585 METERS          SOUNDING ID 3468
DATE 11/18/76      TIME 13:52MST      ASCENT RATE 500 FPM      DATA INTERVAL 15 SEC.

INV BASE          INV TOP          INV DT/DZ          DT/DZ BELOW INV
METERS AGL        METERS AGL        (DEG C)/100M      (DEG C)/100M
76.               848.               0.17              -6.06
*****

UTAH UAUB          ELEV 1585 METERS          SOUNDING ID 3466
DATE 11/20/76      TIME 07:09MST      ASCENT RATE 500 FPM      DATA INTERVAL 15 SEC.

INV BASE          INV TOP          INV DT/DZ          DT/DZ BELOW INV
METERS AGL        METERS AGL        (DEG C)/100M      (DEG C)/100M
0.               343.               5.06              0.0

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UTAH UAUB ELEV 1585 METERS SOUNDING ID 3463

DATE 11/20/76 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	76.	2.74	0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3461

DATE 11/22/76 TIME 07:10MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	1181.	0.90	0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3459

DATE 11/22/76 TIME 14:40MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
182.	951.	0.19	-1.49

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3457

DATE 11/24/76 TIME 07:15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	762.	1.72	0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3458

DATE 11/24/76 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
135.	564.	0.30	-2.42

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3469

DATE 11/26/76 TIME 07:12MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
1023.	1061.	0.52	-1.08



\*\*\*\*\*  
UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3462

DATE 11/26/76 TIME 14:05MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE  
METERS AGLINV TOP  
METERS AGLINV DT/DZ  
(DEG C)/100MDT/DZ BELOW INV  
(DEG C)/100M

0.

114.

0.07

0.0

\*\*\*\*\*  
UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3460

DATE 11/28/76 TIME 08:10MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE  
METERS AGLINV TOP  
METERS AGLINV DT/DZ  
(DEG C)/100MDT/DZ BELOW INV  
(DEG C)/100M

38.

495.

1.36

-3.18

\*\*\*\*\*  
UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3451

DATE 11/28/76 TIME 13:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE  
METERS AGLINV TOP  
METERS AGLINV DT/DZ  
(DEG C)/100MDT/DZ BELOW INV  
(DEG C)/100M

781.

895.

0.0

-1.22

\*\*\*\*\*  
UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3453

DATE 11/30/76 TIME 07:19MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE  
METERS AGLINV TOP  
METERS AGLINV DT/DZ  
(DEG C)/100MDT/DZ BELOW INV  
(DEG C)/100M

0.

1257.

0.76

0.0

\*\*\*\*\*  
UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3449

DATE 11/30/76 TIME 13:48MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE  
METERS AGLINV TOP  
METERS AGLINV DT/DZ  
(DEG C)/100MDT/DZ BELOW INV  
(DEG C)/100M

501.

577.

1.25

-0.89









MONTH: NOVEMBER      YEAR: 1976.      UTAH JAUB      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0		0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE A STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 29 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA





MONTH: NOVEMBER      YEAR: 1976.      UTAH UAUH      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE B      STABILITY CLASS IS      0.0

RELATIVE FREQUENCY OF CALM      0.0

A TOTAL OF      2 SOUNDINGS FROM A SAMPLE OF      29 SOUNDINGS DID NOT HAVE  
500 M OF TEMP AND WIND DATA



MONTH: NOVEMBER      YEAR: 1976.      UTAH UAUB      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE C      STABILITY CLASS IS      0.0

RELATIVE FREQUENCY OF CALM      0.0

A TOTAL OF      2 SOUNDINGS FROM A SAMPLE OF      29 SOUNDINGS DID NOT HAVE  
500 M OF TEMP AND WIND DATA



MONTH: NOVEMBER YEAR: 1976. UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NENE	0.0	0.08	0.0	0.0	0.0	0.0	0.0	0.08
E	0.08	0.0	0.0	0.0	0.0	0.0	2.4	0.08
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.08	0.0	0.0	0.0	0.0	0.08
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.08	0.0	0.0	0.0	0.0	0.08
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.33	0.08	0.0	0.0	0.0	0.0	0.0	0.42
NW	0.08	0.0	0.0	0.0	0.0	0.0	1.8	0.08
NNW	0.17	0.0	0.0	0.0	0.0	0.0	2.0	0.17
AVG SPEED	1.6	3.1	6.3	0.0	0.0	0.0		0.0
TOTAL	0.67	0.17	0.17	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE D STABILITY CLASS IS 0.44

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 29 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA





MONTH: NOVEMBER      YEAR: 1976.      UTAH DAUB      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.13	0.0	0.0	0.0	0.0	0.0	1.5	0.13
NNE	0.0	0.13	0.0	0.0	0.0	0.0	3.5	0.13
ESE	0.0	0.13	0.0	0.0	0.0	0.0	3.7	0.13
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.13	0.13	0.0	0.0	0.0	0.0	2.7	0.25
SSW	0.25	0.0	0.0	0.0	0.0	0.0	2.0	0.25
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	1.5	3.5	0.0	0.0	0.0	0.0		0.0
TOTAL	0.50	0.50	0.0	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE E STABILITY CLASS IS 0.30

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 29 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA





MONTH: NOVEMBER YEAR: 1976. UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.14	0.0	0.0	0.0	0.0	0.0	0.0	0.14
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.14	0.0	0.0	0.0	0.0	0.0	1.1	0.14
SSE	0.29	0.0	0.0	0.0	0.0	0.0	2.0	0.29
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.14	0.0	0.0	0.0	0.0	0.0	1.0	0.14
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.14	0.0	0.0	0.0	0.0	0.0	1.0	0.14
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE F STABILITY CLASS IS 0.26

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 29 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: NOVEMBER      YEAR: 1976.      UTAH DAUB      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.07	0.0	0.0	0.0	0.0	0.0	0.0	0.07
NNE	0.0	0.07	0.0	0.0	0.0	0.0	0.8	0.07
NNE	0.04	0.04	0.0	0.0	0.0	0.0	3.3	0.07
ESE	0.04	0.0	0.0	0.0	0.0	0.0	3.1	0.0
ESE	0.04	0.0	0.0	0.0	0.0	0.0	0.0	0.04
SSE	0.07	0.0	0.0	0.0	0.0	0.0	1.9	0.04
SSW	0.11	0.04	0.0	0.0	0.0	0.0	1.1	0.07
SSW	0.0	0.0	0.04	0.0	0.0	0.0	2.7	0.19
SSW	0.04	0.0	0.04	0.0	0.0	0.0	2.6	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.07
WSW	0.0	0.04	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.15	0.0	0.0	0.0	0.0	0.0	0.0	0.19
NW	0.04	0.0	0.0	0.0	0.0	0.0	1.9	0.04
NNW	0.07	0.0	0.0	0.0	0.0	0.0	2.7	0.07
AVG SPEED	1.5	3.3	6.3	0.0	0.0	0.0		0.0
TOTAL	0.70	0.22	0.07	0.0	0.0	0.0		1.00

NORMALIZED FREQUENCY DISTRIBUTION INDEPENDENT OF STABILITY

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 29 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3313

TE 11/02/76

TIME 06:52MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-4.48		0.0		4.1	90.
1.0	150	1735	-1.57	6.05	7.16	10.09	2.0	152.
2.0	300	1885	4.44	2.87	3.55	6.48	1.7	168.
2.7	* 304	1889	4.45		3.55	6.48		
3.0	415.	2000.	4.64	0.20	2.79	5.71	1.0	155.
3.3	500.	2085.	5.72	1.08	3.34	6.27	2.0	53.
6.0	915.	2500.	4.45	-1.08	-1.49	1.44	4.3	72.
9.3	1415.	3000.	1.86	-2.75	-1.31	1.61	2.4	160.
15.8	2415.	4000.	-2.25	-4.14	-0.38	2.55		
22.4	3415.	5000.	-6.29	-6.05	-2.13	0.80		
28.9	4415.	6000.	-15.84	-7.55	-2.56	0.37		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3313

TE 11/02/76

TIME 06:52MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-4.1	-0.0	4.1	90.
0.5	76.	1661.	-2.1	3.2	3.8	146.
1.0	152.	1737.	-0.9	1.7	1.9	152.
1.5	229.	1814.	0.5	0.4	0.7	234.
2.0	305.	1890.	-0.5	1.7	1.7	164.
2.5	381.	1966.	-0.4	0.4	0.5	225.
3.0	457.	2042.	-1.5	-0.6	1.6	68.
3.5	533.	2118.	-1.5	-1.7	2.2	41.
4.0	610.	2195.	-1.7	-1.1	2.0	58.
4.5	686.	2271.	-2.9	0.0	2.9	91.
5.0	762.	2347.	-3.1	-0.7	3.2	76.
5.5	838.	2423.	-4.6	-1.7	4.8	70.
6.0	914.	2499.	-4.1	-1.3	4.3	72.
6.5	991.	2576.	-3.5	-1.0	3.7	74.
7.0	1067.	2652.	-3.3	-0.8	3.4	76.
7.5	1143.	2728.	-3.0	-0.1	3.0	89.
8.0	1219.	2804.	-3.1	0.6	3.2	101.
8.5	1295.	2880.	-2.5	1.1	2.7	115.
9.0	1372.	2957.	-1.3	1.5	2.0	137.
9.5	1448.	3033.	-0.1	2.6	2.6	177.
0.0	1524.	3109.	0.3	3.4	3.5	184.
0.5	1600.	3185.	0.3	3.4	3.5	185.
1.0	1676.	3261.	-0.3	3.7	3.7	175.
1.5	1753.	3338.	-1.7	5.1	5.4	162.
2.0	1829.	3414.	-3.0	6.4	7.0	155.



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3319

DATE 11/02/76

TIME 13:51MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		20.20		0.0		2.6	360.
0.8	150	1735	17.38	-2.82	-3.71	-0.78	1.4	260.
1.5	300	1885	15.92	-1.46	-2.66	0.27	0.9	332.
2.2	415	2000.	15.92	-0.18	0.71	3.64	1.2	333.
2.8	500	2085	15.93	0.20	0.18	3.11	1.1	340.
5.5	915	2500.	16.01	0.61	-2.84	0.08	1.6	200.
8.8	1415.	3000.	13.01	-3.53	-1.80	1.13	3.1	95.
15.3	2415.	4000.	7.00	-6.02	-2.58	0.35		
21.9	3415.	5000.	1.12	-5.88	-1.51	1.42		
28.0	4415.	6000.	-6.14	-7.26	-4.04	-1.11		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3319

DATE 11/02/76

TIME 13:51MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	0.0	-2.6	2.6	360.
0.5	76.	1661.	1.5	0.6	1.6	249.
1.0	219.	1804.	1.3	0.0	1.3	270.
1.5	304.	1889.	0.4	0.8	0.9	335.
2.0	381.	1966.	0.7	0.7	0.9	316.
2.5	457.	2042.	0.1	1.5	1.5	355.
3.0	533.	2118.	0.4	0.6	0.7	329.
3.5	609.	2194.	0.9	1.7	2.0	208.
4.0	685.	2270.	0.6	2.3	2.4	194.
4.5	762.	2347.	0.6	2.3	2.4	195.
5.0	838.	2423.	1.3	2.0	2.4	215.
5.5	914.	2499.	0.5	1.5	1.6	200.
6.0	990.	2575.	0.1	1.0	1.0	186.
6.5	1069.	2654.	0.5	0.9	1.1	151.
7.0	1145.	2730.	1.4	1.5	2.0	137.
7.5	1221.	2806.	2.4	1.4	2.7	120.
8.0	1297.	2882.	3.5	1.4	3.8	112.
8.5	1374.	2959.	3.5	0.2	3.5	94.
9.0	1450.	3035.	2.8	0.3	2.8	96.
9.5	1526.	3111.	1.3	1.1	1.7	132.
10.0	1602.	3187.	0.2	0.4	0.5	204.
10.5	1678.	3263.	0.5	0.3	0.6	242.
11.0	1755.	3340.	0.9	1.7	2.0	207.
11.5	1831.	3416.	1.3	2.3	2.7	210.
12.0	1907.	3492.	2.3	1.9	3.0	231.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3318

TE 11/04/76

TIME 07:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-2.15		0.0		2.1	90.
1.0	150	1735	-0.82	2.97	5.83	8.76	2.9	139.
1.8	* 266	1851	3.69		4.49	7.42		
2.0	300	1885	3.88	3.06	2.24	5.17	2.7	188.
2.7	415.	2000.	4.54	0.57	2.42	5.35	1.7	257.
3.3	500.	2085.	5.08	0.64	1.67	4.60	3.6	275.
6.0	915.	2500.	4.73	-0.23	-2.04	0.88	2.2	242.
9.3	1415.	3000.	2.84	-2.01	-0.37	2.55	3.3	303.
15.8	2415.	4000.	-0.22	-3.06	-1.13	1.79		
22.3	3415.	5000.	-3.11	-2.89	-4.01	-1.08		
28.6	4415.	6000.	-8.69	-5.57	-3.49	-0.56		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3318

TE 11/04/76

TIME 07:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-2.1	-0.0	2.1	90.
0.5	76.	1661.	-1.6	-2.8	3.3	150.
1.0	152.	1737.	-1.9	2.1	2.9	138.
1.5	229.	1814.	-0.4	2.6	2.6	171.
2.0	305.	1890.	0.4	2.7	2.7	189.
2.5	381.	1966.	0.8	0.2	0.9	254.
3.0	457.	2042.	2.7	0.5	2.7	260.
3.5	533.	2118.	4.1	1.2	4.3	287.
4.0	610.	2195.	2.6	0.5	2.7	281.
4.5	686.	2271.	1.7	0.4	1.8	259.
5.0	762.	2347.	2.2	0.5	2.3	257.
5.5	838.	2423.	2.7	0.7	2.8	256.
6.0	914.	2499.	2.0	1.1	2.2	241.
6.5	991.	2576.	2.5	0.3	2.5	264.
7.0	1067.	2652.	2.7	0.1	2.7	268.
7.5	1143.	2728.	2.4	0.4	2.5	280.
8.0	1219.	2804.	2.4	1.2	2.7	296.
8.5	1295.	2880.	3.4	2.3	4.1	304.
9.0	1372.	2957.	3.5	2.0	4.1	299.
9.5	1448.	3033.	2.2	1.5	2.7	305.
10.0	1524.	3109.	1.5	1.4	2.1	311.
10.5	1600.	3185.	2.0	1.9	2.8	314.
11.0	1676.	3261.	2.6	3.2	4.2	321.
11.5	1753.	3338.	3.8	4.1	5.6	317.
12.0	1829.	3414.	4.6	5.5	7.2	320.



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3310

TE 11/04/76 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		15.56		0.0		2.6	45.
1.0	150	1735	14.46	-1.09	-0.89	2.03	1.0	307.
2.0	300	1885	13.47	-0.99	-1.79	1.13	1.5	302.
2.7	415.	2000.	12.83	-0.64	-0.54	2.39	1.6	290.
3.3	500	2085	12.92	0.09	-1.08	1.85	1.5	296.
6.0	915.	2500.	10.25	-2.36	-2.18	0.75	2.4	249.
9.3	1415.	3000.	10.53	-0.03	-0.18	2.75	9.5	221.
15.5	2415.	4000.	5.49	-5.04	-0.56	2.37		
22.1	3415.	5000.	2.17	-3.32	-3.19	-0.26		
28.1	4415.	6000.	-5.94	-8.11	-2.12	0.81		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3310

TE 11/04/76 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.8	-1.8	2.6	45.
0.5	76.	1661.	0.7	-0.5	0.8	305.
1.0	152.	1737.	0.8	-0.6	1.0	307.
1.5	229.	1814.	0.9	-0.7	1.2	310.
2.0	305.	1890.	1.3	-0.8	1.5	301.
2.5	381.	1966.	1.5	-0.4	1.6	286.
3.0	457.	2042.	1.5	-0.7	1.6	294.
3.5	533.	2118.	1.3	-0.7	1.4	298.
4.0	610.	2195.	1.8	0.2	1.8	263.
4.5	686.	2271.	3.6	-1.0	3.7	285.
5.0	762.	2347.	2.5	0.1	2.5	267.
5.5	838.	2423.	1.8	0.3	1.9	260.
6.0	914.	2499.	2.2	0.8	2.4	249.
6.5	991.	2576.	4.5	2.0	4.9	246.
7.0	1067.	2652.	5.8	3.6	6.9	238.
7.5	1143.	2728.	6.6	4.6	8.0	235.
8.0	1219.	2804.	6.7	5.9	8.9	229.
8.5	1295.	2880.	7.3	7.0	10.1	227.
9.0	1372.	2957.	6.7	7.0	9.7	224.
9.5	1448.	3033.	5.8	7.3	9.3	218.
10.0	1524.	3109.	5.6	3.6	6.7	238.
10.5	1600.	3185.	5.9	2.9	4.9	233.
11.0	1676.	3261.	5.6	2.9	6.3	243.
11.5	1778.	3363.	2.4	-0.7	2.5	285.
12.0	1871.	3456.	5.3	-0.6	5.3	277.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3312

DATE 11/06/76

TIME 07:12MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.3	SFC		-3.31		0.0		1.5	135.
1.0	38	1623	-3.80		0.0			
2.0	150	1735	0.82	4.13	7.54	10.47	1.0	152.
2.3	300	1885	4.73	3.91	5.59	8.52	2.2	220.
2.7	342	1927	5.39		2.23	5.16		
3.3	415	2000.	6.05	0.85	1.85	4.78	0.8	228.
3.7	500	2085.	6.52	0.93	1.11	4.04	0.6	175.
6.0	915	2500.	7.46	0.94	0.37	3.30	2.6	208.
9.3	1415	3000.	6.90	-0.55	-1.85	1.08	2.2	252.
15.8	2415	4000.	-0.22	-7.13	-1.51	1.41		
22.2	3415	5000.	-8.69	-8.46	-1.94	0.99		
28.7	4415	6000.	-15.14	-6.45	-1.18	1.75		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3312

DATE 11/06/76

TIME 07:12MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.1	1.1	1.5	135.
0.5	76.	1661.	-1.3	1.7	2.1	143.
1.0	152.	1737.	-0.5	0.9	1.0	152.
1.5	229.	1814.	0.3	2.2	2.2	189.
2.0	305.	1890.	1.4	1.6	2.2	222.
2.5	381.	1966.	1.0	0.3	1.0	254.
3.0	457.	2042.	0.1	0.5	0.5	196.
3.5	533.	2118.	-0.3	0.7	0.7	159.
4.0	610.	2195.	0.4	0.7	0.8	208.
4.5	686.	2271.	0.8	1.7	1.9	205.
5.0	762.	2347.	0.3	1.2	1.3	195.
5.5	838.	2423.	0.6	1.6	1.7	202.
6.0	914.	2499.	1.2	2.3	2.6	208.
6.5	991.	2576.	0.6	1.1	1.3	209.
7.0	1067.	2652.	1.4	0.0	1.4	269.
7.5	1143.	2728.	3.0	-0.6	3.0	281.
8.0	1219.	2804.	2.9	0.5	3.0	260.
8.5	1295.	2880.	2.5	0.9	2.7	251.
9.0	1372.	2957.	1.8	0.7	2.0	249.
9.5	1448.	3033.	2.3	0.6	2.3	255.
10.0	1524.	3109.	2.6	0.3	2.8	264.
10.5	1600.	3185.	2.8	-0.3	2.8	277.
11.0	1676.	3261.	3.3	0.2	3.3	267.
11.5	1753.	3338.	3.0	0.5	3.0	266.
12.0	1829.	3414.	3.4	0.5	3.5	261.



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3306

DATE 11/06/76

TIME 13:59MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		15.42		0.0			
0.9	150	1735	13.45	-1.97	-1.81	1.12	2.6	270.
1.9	300	1885	12.86	-0.59	-1.45	1.48	3.4	298.
2.6	415.	2000.	11.75	-0.82	-2.73	0.20	2.7	304.
3.2	500	2085.	11.29	-0.75	-0.36	2.56	2.7	306.
5.9	915.	2500.	13.13	1.84	0.0	2.93	9.5	197.
9.2	1415.	3000.	12.22	-0.92	-2.55	0.38	M	46.
15.1	2415.	4000.	6.14	-6.07	-1.49	1.44		M
21.5	3415.	5000.	0.89	-5.25	-0.57	2.36		
28.0	4415.	6000.	-5.91	-6.80	-1.93	1.00		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3306

DATE 11/06/76

TIME 13:59MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	2.6	0.0	2.6	270.
0.5	76.	1661.	3.4	-0.7	3.4	281.
1.0	165.	1750.	3.9	-2.3	4.5	301.
1.5	241.	1826.	2.6	-2.4	3.5	312.
2.0	317.	1902.	2.8	-1.8	3.4	302.
2.5	393.	1978.	2.4	-1.4	2.8	299.
3.0	469.	2054.	1.5	-2.1	2.6	324.
3.5	546.	2131.	0.3	-2.9	2.9	7.
4.0	622.	2207.	3.9	-2.8	4.6	52.
4.5	698.	2283.	5.6	-4.4	7.2	52.
5.0	774.	2359.	6.5	-6.6	9.2	45.
5.5	850.	2435.	6.9	-6.2	9.2	48.
6.0	927.	2512.	6.8	-6.7	9.6	46.
6.5	1003.	2588.	5.8	-6.1	8.4	44.
7.0	1079.	2664.	5.7	-5.1	7.6	48.
7.5	1155.	2740.	5.9	-3.9	7.1	56.
8.0	1231.	2816.	5.4	-1.6	5.7	74.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3308

DATE 11/08/76

TIME 07:10MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-3.76		0.0		1.5	90.
1.0	150	1735	-1.85	5.60	9.81	12.74	3.5	142.
2.0	300	1885	6.31	4.46	5.59	8.51	2.5	167.
2.7	415	2000.	7.84	1.52	0.56	3.48	2.2	190.
3.3	500	2085	7.57	-0.26	-1.11	1.82	1.9	198.
6.0	915.	2500.	6.89	-0.88	-1.30	4.23	7.4	260.
9.3	1415.	3000.	4.63	-2.06	-2.06	0.67	M	M
15.8	2415.	4000.	-2.20	-6.83	-3.06	-0.13		
22.3	3415.	5000.	-10.05	-7.86	-1.95	0.98		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3308

DATE 11/08/76

TIME 07:10MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.5	-0.0	1.5	90.
0.5	75.	1661.	-2.1	1.8	2.8	131.
1.0	152.	1737.	-2.2	2.8	3.5	142.
1.5	229.	1814.	-0.3	2.4	2.4	174.
2.0	305.	1890.	-0.6	2.5	2.5	166.
2.5	381.	1966.	0.4	2.7	2.7	189.
3.0	457.	2042.	0.3	2.4	1.7	192.
3.5	533.	2118.	0.8	2.0	2.2	203.
4.0	610.	2195.	1.9	2.7	3.3	216.
4.5	686.	2271.	2.8	2.9	4.0	223.
5.0	762.	2347.	3.1	3.7	4.1	229.
5.5	838.	2423.	5.4	3.5	6.5	237.
6.0	914.	2499.	7.2	1.3	7.4	260.
6.5	991.	2576.	7.6	-1.1	7.6	279.
7.0	1067.	2652.	8.0	-0.8	8.1	275.



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3309

TE 11/08/76

TIME 13:57MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.9	SFC		17.24		0.0		2.1	315.
1.8	150	1735	15.00	-2.23	-1.98	0.95	2.2	266.
2.6	300	1885	13.61	-1.40	-0.90	2.03	1.5	321.
3.1	415	2000.	13.78	0.17	-0.72	2.21	1.6	350.
3.9	500	2085	13.16	-0.62	0.54	3.47	1.5	322.
5.1	915	2500.	13.23	0.09	-2.35	0.58	8.1	252.
9.1	1415.	3000.	10.92	-2.14	-1.46	1.47	11.9	282.
15.7	2415.	4000.	3.48	-7.62	-2.25	0.68		
22.2	3415.	5000.	-1.52	-5.00	-3.05	-0.12		
28.6	4415.	6000.	-8.17	-6.65	-3.89	-0.96		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3309

TE 11/08/76

TIME 13:57MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	1.5	-1.5	2.1	315.
0.5	76.	1661.	2.0	-0.0	2.0	271.
1.0	174.	1759.	2.3	0.2	2.3	264.
1.5	250.	1835.	0.9	-0.5	1.1	300.
2.0	326.	1911.	0.8	-1.6	1.8	333.
2.5	403.	1988.	0.3	-1.7	1.7	351.
3.0	479.	2064.	0.4	-1.2	1.3	342.
3.5	555.	2140.	2.0	-0.1	2.0	272.
4.0	631.	2216.	6.7	2.7	7.3	248.
4.5	707.	2292.	5.0	2.4	5.6	244.
5.0	784.	2369.	6.9	2.9	7.5	248.
5.5	860.	2445.	8.0	3.2	8.6	248.
6.0	936.	2521.	7.5	2.3	7.9	253.
6.5	1012.	2597.	8.1	2.4	8.4	254.
7.0	1088.	2673.	8.9	1.1	9.0	263.
7.5	1165.	2750.	10.3	-0.2	10.3	271.
8.0	1241.	2826.	12.0	-0.9	12.1	274.
8.5	1317.	2902.	11.9	-2.1	12.1	280.
9.0	1393.	2978.	12.0	-2.6	12.2	282.
9.5	1469.	3054.	10.9	-2.2	11.1	282.
10.0	1546.	3131.	9.8	-1.4	9.9	278.
10.5	1622.	3207.	9.0	-1.2	9.1	278.
11.0	1698.	3283.	9.3	-1.7	9.5	280.
11.5	1774.	3359.	8.1	-2.2	8.4	285.
12.0	1850.	3435.	9.9	-1.6	10.1	279.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3311

TE 11/10/76

TIME 07:05MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-2.49		0.0		1.0	90.
1.0	150	1735	1.36	3.85	9.06	11.99	0.8	150.
1.8	* 266	1851	5.19		7.11	10.04		
2.0	300	1885	5.19	3.84	4.67	7.59	2.5	304.
2.7	415.	2000.	6.80	1.60	-0.19	2.74	2.2	241.
3.3	500.	2085.	6.33	-0.46	-0.56	3.48	4.4	224.
6.0	915.	2500.	5.86	-0.10	-1.68	1.25	5.8	230.
9.3	1415.	3000.	4.43	-1.80	-2.43	0.50	8.7	258.
5.8	2415.	4000.	-1.33	-5.76	-2.67	0.26		
2.3	3415.	5000.	-8.27	-6.95	-2.72	0.21		
8.7	4415.	6000.	-15.54	-7.27	-3.36	-0.43		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3311

E 11/10/76

TIME 07:05MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

IME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.0	-0.0	1.0	90.
0.5	76.	1661.	-0.3	0.7	0.8	155.
1.0	152.	1737.	-0.4	0.7	0.8	150.
1.5	229.	1814.	-0.1	0.1	0.2	151.
2.0	305.	1890.	1.9	-1.8	2.6	314.
2.5	381.	1966.	1.4	0.4	1.4	253.
3.0	457.	2042.	2.2	2.3	3.2	224.
3.5	533.	2118.	3.8	3.9	5.4	224.
4.0	610.	2195.	5.1	6.1	8.0	220.
4.5	686.	2271.	4.5	6.1	7.5	216.
5.0	762.	2347.	3.9	4.9	6.3	218.
5.5	838.	2423.	4.1	4.0	5.7	226.
6.0	914.	2499.	4.4	3.7	5.8	230.
6.5	991.	2576.	5.0	4.5	6.7	228.
7.0	1067.	2652.	6.4	5.5	8.4	229.
7.5	1143.	2728.	8.1	5.1	9.6	238.
8.0	1219.	2804.	7.7	4.2	8.8	242.
8.5	1295.	2880.	8.2	2.6	8.6	252.
9.0	1372.	2957.	8.6	2.1	8.9	256.
9.5	1448.	3033.	8.5	1.5	8.6	260.
0.0	1524.	3109.	8.2	1.5	8.3	260.
0.5	1600.	3185.	7.2	1.5	7.4	258.
1.0	1676.	3261.	7.5	1.3	7.6	260.
1.5	1753.	3338.	7.3	0.8	7.3	264.
2.0	1829.	3414.	7.2	-0.4	7.2	273.



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3305

E 11/10/76

TIME 14:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.9	SFC		12.25		0.0		1.5	270.
1.9	150	1735	10.31	-1.94	-2.75	0.18	1.7	206.
2.7	300	1885	9.46	-0.85	-0.55	2.38	1.5	140.
3.2	415.	2000.	9.93	-0.09	1.29	4.22	1.4	236.
3.9	500	2085.	9.93	0.56	0.0	2.93	1.9	268.
4.2	915.	2500.	8.71	-1.22	-1.11	1.82	5.5	258.
4.9	1415.	3000.	4.74	-3.68	-2.06	0.87	11.0	270.
5.8	2415.	4000.	0.14	-4.89	-2.47	0.46		
6.0	3415.	5000.	-9.16	-9.30	-3.90	-0.97		
6.7	4415.	6000.	-16.65	-7.50	0.79	3.72		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3305

E 11/10/76

TIME 14:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.5	0.0	1.5	270.
0.5	76.	1661.	0.9	0.5	1.1	240.
1.0	163.	1748.	0.6	1.7	1.8	199.
1.5	239.	1824.	-0.5	1.5	1.6	160.
2.0	315.	1900.	-1.0	1.0	1.4	135.
2.5	392.	1977.	0.6	0.6	0.8	222.
3.0	468.	2053.	2.6	0.1	2.6	269.
3.5	544.	2129.	3.2	0.4	3.2	263.
4.0	620.	2205.	3.3	1.5	3.6	246.
4.5	696.	2281.	4.0	2.4	4.6	239.
5.0	773.	2358.	4.7	3.1	5.6	237.
5.5	849.	2434.	4.6	3.0	5.5	237.
6.0	925.	2510.	5.4	0.9	5.5	261.
6.5	1001.	2586.	6.5	0.3	6.5	268.
7.0	1077.	2662.	7.0	0.7	7.0	265.
7.5	1154.	2739.	8.1	0.8	8.1	265.
8.0	1230.	2815.	7.9	0.6	7.9	265.
8.5	1306.	2891.	7.1	-0.0	7.1	270.
9.0	1382.	2967.	11.3	-0.4	11.3	268.
9.5	1458.	3043.	10.6	-0.3	10.6	272.
10.0	1535.	3120.	10.2	-0.2	10.2	271.
10.5	1611.	3196.	7.8	-0.6	7.9	274.
11.0	1687.	3272.	6.5	0.5	6.5	265.
11.5	1763.	3348.	7.0	1.6	7.2	257.
12.0	1839.	3424.	7.1	2.4	7.5	252.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3307

TE 11/12/76 TIME 07:04MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		M					
1.0	150	1735					3.9	90.
2.0	300	1885					3.8	55.
2.7	415.	2000.					6.0	56.
3.3	500	2085					7.8	52.
6.0	915.	2500.					9.8	48.
9.3	1415.	3000.					8.6	42.
							7.5	30.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3307

TE 11/12/76 TIME 07:04MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-3.9	-0.0	3.9	90.
0.5	76.	1661.	-2.8	-0.1	2.9	88.
1.0	152.	1737.	-3.1	-2.2	3.8	54.
1.5	229.	1814.	-3.9	-3.2	5.0	51.
2.0	305.	1890.	-5.0	-3.4	6.0	56.
2.5	381.	1966.	-5.5	-4.0	6.8	53.
3.0	457.	2042.	-6.9	-5.7	8.9	51.
3.5	533.	2118.	-7.6	-7.3	10.5	46.
4.0	610.	2195.	-10.3	-8.1	13.1	52.
4.5	686.	2271.	-11.7	-9.0	14.8	52.
5.0	762.	2347.	-9.6	-6.9	11.9	54.
5.5	838.	2423.	-7.5	-6.7	10.1	48.
6.0	914.	2499.	-5.7	-6.4	8.6	42.
6.5	991.	2576.	-5.8	-6.6	8.6	40.
7.0	1067.	2652.	-5.8	-7.4	9.4	38.
7.5	1143.	2728.	-3.8	-6.1	7.2	32.
8.0	1219.	2804.	-3.2	-6.5	7.3	26.
8.5	1295.	2880.	-2.7	-6.7	7.3	22.
9.0	1372.	2957.	-3.7	-6.7	7.6	29.
9.5	1448.	3033.	-3.8	-9.4	7.4	31.
10.0	1524.	3109.	-4.2	-5.9	7.2	36.
10.5	1600.	3185.	-3.4	-5.1	6.1	33.
11.0	1676.	3261.	-3.4	-3.5	4.8	44.
11.5	1753.	3338.	-1.6	-2.1	2.6	37.
12.0	1829.	3414.	-1.0	0.3	1.0	105.



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3471

TE 11/12/76

TIME 13:56MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		6.52		0.0		3.1	25.
1.0	150	1735	4.92	-1.60	-1.49	1.44	3.2	54.
2.0	300	1885	4.64	-0.28	-1.49	1.44	3.2	50.
2.7	415.	2000.	3.50	-1.13	-1.87	1.06	3.7	35.
3.3	500	2085	2.93	-0.58	-2.62	0.31	3.4	26.
5.9	915.	2500.	-0.13	-3.06	-0.95	1.98	3.4	70.
9.2	1415.	3000.	-0.70	-0.19	-1.70	1.22	2.4	68.
15.8	2415.	4000.	-6.13	-5.82	-2.12	0.81		
22.3	3415.	5000.	-13.54	-7.41	-2.16	0.77		
28.9	4415.	6000.	-20.07	-6.53	-4.38	-1.45		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3471

TE 11/12/76

TIME 13:56MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.3	-2.8	3.1	25.
0.5	76.	1661.	-1.1	-1.2	1.6	45.
1.0	154.	1739.	-2.7	-1.9	3.3	54.
1.5	231.	1816.	-2.8	-1.6	3.2	60.
2.0	307.	1892.	-2.7	-1.8	3.2	56.
2.5	383.	1968.	-2.5	-2.9	3.8	41.
3.0	459.	2044.	-1.6	-3.0	3.4	27.
3.5	535.	2120.	-1.4	-3.0	3.3	24.
4.0	612.	2197.	-1.8	-2.3	2.9	38.
4.5	688.	2273.	-2.5	-1.6	2.9	58.
5.0	764.	2349.	-2.5	-1.4	2.9	60.
5.5	848.	2433.	-2.3	-1.8	2.9	53.
6.0	924.	2509.	-2.2	-0.7	2.3	72.
6.5	1000.	2585.	-4.1	-3.9	5.6	46.
7.0	1076.	2661.	-7.0	-5.6	9.0	51.
7.5	1152.	2737.	-7.5	-4.2	8.6	61.
8.0	1229.	2814.	-6.7	-2.8	7.3	67.
8.5	1305.	2890.	-4.9	-1.5	5.1	73.
9.0	1381.	2966.	-2.4	-1.2	2.7	64.
9.5	1457.	3042.	-2.0	-0.6	2.1	72.
10.0	1533.	3118.	-1.7	-0.3	1.7	82.
10.5	1610.	3195.	-1.7	0.5	1.7	105.
11.0	1686.	3271.	-1.5	1.6	2.2	137.
11.5	1762.	3347.	-4.3	0.6	4.3	98.
12.0	1838.	3423.	-7.6	-0.2	7.6	88.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3464

E 11/14/76

TIME 07:22MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-3.99		0.0		1.5	90.
1.0	150	1735	1.96	5.95	5.65	8.58	2.3	212.
1.3	* 190	1775	2.55		3.38	6.31		
2.0	300	1885	2.55	0.59	0.0	2.93	7.5	205.
2.7	415.	2000.	1.98	-0.47	-1.88	1.05	9.8	211.
3.3	500	2085	1.61	-0.47	-1.50	1.42	9.8	220.
6.0	915.	2500.	-0.03	-1.54	-0.38	2.55	13.5	251.
9.3	1415.	3000.	-1.76	-1.82	-1.52	1.41	13.8	260.
5.3	2415.	4000.	-7.80	-6.04	-3.67	-0.75		
1.7	3415.	5000.	-14.04	-6.24	-1.96	0.96		
7.5	4415.	6000.	-21.68	-7.64	-2.39	0.53		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3464

E 11/14/76

TIME 07:22MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.5	-0.0	1.5	90.
0.5	76.	1661.	-0.9	0.4	1.0	112.
1.0	152.	1737.	1.4	1.9	2.4	215.
1.5	229.	1814.	2.1	4.6	5.1	205.
2.0	305.	1890.	3.2	7.0	7.7	205.
2.5	381.	1966.	4.6	8.5	9.7	208.
3.0	457.	2042.	5.7	8.2	10.0	215.
3.5	533.	2118.	6.7	7.1	9.7	223.
4.0	610.	2195.	6.9	6.2	9.3	228.
4.5	686.	2271.	7.9	5.7	9.7	234.
5.0	762.	2347.	9.2	4.9	10.4	242.
5.5	838.	2423.	9.8	4.4	10.8	246.
6.0	914.	2499.	12.8	4.3	13.5	251.
6.5	991.	2576.	12.8	4.9	13.7	249.
7.0	1067.	2652.	12.0	4.0	12.6	252.
7.5	1143.	2728.	13.0	3.6	13.5	254.
8.0	1219.	2804.	12.6	3.7	13.1	254.
8.5	1295.	2880.	13.5	3.4	13.9	256.
9.0	1372.	2957.	13.2	2.6	13.5	259.
9.5	1448.	3033.	13.9	2.2	14.1	261.
10.0	1524.	3109.	15.8	2.7	16.0	260.
10.5	1600.	3185.	14.1	0.6	14.1	267.
11.0	1676.	3261.	14.3	0.8	14.3	267.
11.5	1753.	3338.	14.5	1.1	14.6	266.
12.0	1829.	3414.	14.7	1.5	14.8	264.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3367

E 11/14/76

TIME 13:56MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

IME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		9.51		0.0		2.6	270.
1.0	150	1735	8.21	-1.30	-1.66	1.27	4.8	260.
2.0	300	1885	6.81	-1.40	-1.66	1.27	8.1	262.
2.7	415.	2000.	6.43	-0.38	-1.30	1.63	8.1	249.
3.3	500	2085	5.80	-0.63	-2.04	0.89	8.3	243.
6.0	915.	2500.	2.74	-3.06	-2.43	0.49	10.2	248.
9.2	1415.	3000.	1.60	-1.43	1.88	4.81	9.7	253.
5.5	2415.	4000.	-5.45	-6.76	-1.92	1.01		
2.1	3415.	5000.	-11.65	-6.20	-1.95	0.98		
8.4	4415.	6000.	-15.84	-4.19	3.55	6.48		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3367

E 11/14/76

TIME 13:56MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

IME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	2.6	0.0	2.6	270.
0.5	76.	1661.	3.8	1.2	4.0	252.
1.0	152.	1737.	4.8	0.9	4.8	260.
1.5	229.	1814.	6.1	0.5	6.1	265.
2.0	305.	1890.	8.1	1.2	8.2	262.
2.5	381.	1966.	7.8	2.4	8.1	253.
3.0	457.	2042.	7.2	3.4	8.0	245.
3.5	533.	2118.	7.6	4.0	8.6	242.
4.0	610.	2195.	8.0	3.9	8.9	244.
4.5	686.	2271.	7.4	3.2	8.1	247.
5.0	766.	2351.	8.8	3.8	9.6	247.
5.5	843.	2428.	9.0	3.5	9.7	249.
6.0	919.	2504.	9.5	3.9	10.3	248.
6.5	995.	2580.	9.5	3.8	10.2	248.
7.0	1071.	2656.	9.3	3.8	10.0	248.
7.5	1147.	2732.	10.3	4.3	11.2	247.
8.0	1226.	2811.	9.7	3.4	10.3	251.
8.5	1302.	2887.	10.6	3.7	11.2	251.
9.0	1379.	2964.	9.2	2.8	9.6	253.
9.5	1455.	3040.	9.3	2.8	9.7	253.
10.0	1531.	3116.	9.4	2.8	9.8	254.
10.5	1610.	3195.	11.4	2.0	11.6	260.
11.0	1708.	3293.	13.0	1.2	13.1	265.
11.5	1799.	3384.	12.5	0.6	12.5	267.
12.0	1876.	3461.	11.0	0.2	11.0	271.



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3465

TE 11/16/76

TIME 07:05MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-1.09		0.0		1.5	90.
1.0	150	1735	0.65	1.74	2.26	5.19	1.8	156.
1.3	* 190	1775	1.79		1.50	4.43		
2.0	300	1885	1.60	0.95	-0.56	2.36	4.4	44.
2.7	415.	2000.	1.02	-0.48	-2.26	0.67	7.1	37.
3.3	500	2085	0.38	-0.75	-2.26	0.66	8.4	34.
6.0	915.	2500.	-2.44	-2.53	-2.86	0.07	11.2	21.
9.2	1415.	3000.	-6.92	-4.47	-2.89	0.04	15.5	4.
15.6	2415.	4000.	-12.05	-5.42	-0.59	2.34		
21.9	3415.	5000.	-16.64	-4.59	-1.58	1.35		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3465

TE 11/16/76

TIME 07:05MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.5	-0.0	1.5	90.
0.5	76.	1661.	-0.4	3.5	3.5	174.
1.0	152.	1737.	-0.7	1.6	1.7	156.
1.5	229.	1814.	-2.3	-1.1	2.6	64.
2.0	305.	1890.	-3.1	-3.3	4.5	43.
2.5	381.	1966.	-3.9	-5.2	6.5	37.
3.0	457.	2042.	-4.6	-6.3	7.8	36.
3.5	533.	2118.	-4.8	-7.5	8.9	33.
4.0	610.	2195.	-5.6	-8.8	10.4	32.
4.5	686.	2271.	-5.1	-9.0	10.4	30.
5.0	762.	2347.	-3.2	-8.9	9.4	20.
5.5	838.	2423.	-2.8	-8.6	9.0	18.
6.0	914.	2499.	-4.1	-10.4	11.2	21.
6.5	991.	2576.	-3.1	-10.6	11.1	16.
7.0	1070.	2655.	-3.2	-10.2	10.7	18.
7.5	1162.	2747.	-3.0	-11.2	11.6	15.
8.0	1239.	2824.	-1.7	-10.8	11.0	9.
8.5	1315.	2900.	-0.2	-12.8	12.8	1.
9.0	1391.	2976.	-1.4	-15.8	15.9	5.
9.5	1468.	3053.	-0.5	-14.5	14.5	2.
10.0	1544.	3129.	1.0	-13.6	13.7	356.
10.5	1620.	3205.	2.2	-17.0	17.2	353.
11.0	1696.	3281.	2.8	-15.3	15.6	350.
11.5	1772.	3357.	2.9	-17.5	17.7	351.
12.0	1849.	3434.	4.8	-15.4	16.1	343.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3472

TE 11/16/76

TIME 14:02MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		13.19		0.0		1.5	90.
1.0	150	1735	14.02	0.82	-0.54	2.39	1.7	35.
2.0	300	1885	13.47	-0.54	-1.08	1.85	2.3	26.
2.7	415.	2000.	13.01	-0.46	-1.08	1.85	2.0	161.
3.3	500	2085.	12.74	-0.27	-0.54	2.39	1.7	323.
6.0	915.	2500.	10.71	-1.83	-2.18	0.75	3.0	310.
9.3	1415.	3000.	7.27	-3.63	-1.84	1.09	7.6	351.
15.8	2415.	4000.	1.98	-5.30	-0.56	2.37		
22.4	3415.	5000.	-2.83	-4.81	-0.76	2.17		
28.7	4415.	6000.	-11.65	-8.83	-2.73	0.20		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3472

TE 11/16/76

TIME 14:02MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.5	-0.0	1.5	90.
0.5	76.	1661.	0.5	-0.1	0.5	281.
1.0	152.	1737.	0.6	-1.5	1.7	27.
1.5	229.	1814.	1.3	-1.5	2.0	40.
2.0	305.	1890.	1.0	-2.1	2.4	25.
2.5	381.	1966.	0.4	-2.3	2.3	11.
3.0	457.	2042.	0.3	-1.6	1.6	348.
3.5	533.	2118.	1.5	-1.0	1.8	303.
4.0	610.	2195.	1.9	-1.2	2.3	302.
4.5	686.	2271.	1.2	-1.2	1.7	313.
5.0	762.	2347.	0.6	-0.5	0.8	309.
5.5	838.	2423.	1.4	-0.8	1.6	301.
6.0	914.	2499.	2.3	-1.9	3.0	310.
6.5	991.	2576.	1.2	-3.2	3.4	340.
7.0	1067.	2652.	0.8	-3.1	3.2	345.
7.5	1143.	2728.	0.1	-3.2	3.2	1.
8.0	1219.	2804.	0.0	-3.4	3.4	0.
8.5	1295.	2880.	0.1	-4.4	4.4	1.
9.0	1372.	2957.	0.9	-7.1	7.1	353.
9.5	1448.	3033.	1.5	-7.8	7.9	349.
0.0	1524.	3109.	1.7	-9.6	9.8	350.
0.5	1600.	3185.	3.3	-9.9	10.5	341.
1.0	1676.	3261.	3.3	-10.7	11.2	343.
1.5	1753.	3338.	3.4	-11.2	11.7	343.
2.0	1829.	3414.	2.3	-9.9	10.2	347.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3470

TE 11/18/76

TIME 07:07MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-5.94		0.0		2.1	90.
1.0	150	1735	-0.13	5.81	5.68	8.61	2.2	155.
1.5	* 228	1813	0.83		1.89	4.82		
2.0	300	1885	0.83	0.97	4.13	7.06	2.3	142.
2.5	* 304	1889	0.83		4.13	7.06		
3.0	415	2000.	4.45	2.85	4.84	7.77	3.2	75.
3.5	* 495	2080.	5.21		3.72	6.65		
4.0	500	2085	5.38	1.70	2.23	5.16	2.2	44.
5.0	915	2500.	4.92	0.01	0.19	3.11	0.6	116.
6.0	1415	? 3000.	5.02	-0.37	-1.30	1.63	2.2	222.
7.0	2415	4000.	-0.03	-5.05	-0.38	2.55		
8.0	3415	5000.	-4.19	-4.16	-3.63	-0.70		
9.0	4415	6000.	-10.07	-5.88	-2.53	0.40		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3470

E 11/18/76

TIME 07:07MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-2.1	-0.0	2.1	90.
0.5	76.	1661.	-0.8	-2.7	2.9	164.
1.0	152.	1737.	-1.0	2.0	2.2	154.
1.5	229.	1814.	-1.2	2.0	2.4	149.
2.0	305.	1890.	-1.4	1.8	2.3	142.
2.5	381.	1966.	-3.1	-0.3	3.1	84.
3.0	457.	2042.	-3.0	-1.5	3.4	64.
3.5	533.	2118.	-0.6	-1.2	1.3	28.
4.0	610.	2195.	-0.5	-0.9	1.1	27.
4.5	686.	2271.	-0.7	-0.7	1.0	47.
5.0	762.	2347.	-1.4	-0.8	1.6	60.
5.5	838.	2423.	-1.3	-0.9	1.6	56.
6.0	914.	2499.	-0.6	0.3	0.6	115.
6.5	991.	2576.	-0.3	0.8	0.9	160.
7.0	1067.	2652.	-0.1	1.3	1.3	175.
7.5	1143.	2728.	-0.9	2.2	2.4	157.
8.0	1219.	2804.	0.0	2.2	2.2	181.
8.5	1295.	2880.	1.3	1.8	2.2	215.
9.0	1372.	2957.	1.7	1.5	2.3	228.
9.5	1448.	3033.	1.3	1.7	2.2	217.
0.0	1524.	3109.	-0.9	1.6	1.8	151.
0.5	1600.	3185.	-1.6	-1.0	1.9	57.
1.0	1676.	3261.	-3.3	-1.9	3.8	60.
1.5	1753.	3338.	-3.7	-2.0	4.2	62.
2.0	1829.	3414.	-3.3	-1.6	3.7	64.



UTAH UAU6

ELEV 1585 METERS

SOUNDING ID 3468

TE 11/18/76

TIME 13:52MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.7	SFC		12.55		0.0		1.0	270.
1.4	150	1735	7.93	-4.63	1.28	4.21	2.9	236.
2.2	300	1885	8.54	0.61	3.12	6.05	2.3	328.
3.0	415.	2000.	8.39	0.33	-1.83	1.10	3.3	250.
4.7	500	2085	8.12	-0.75	-0.37	2.56	2.6	25.
5.4	915.	2500.	8.68	0.56	-1.83	1.10	1.5	320.
8.7	1415.	3000.	6.62	-1.97	-0.55	2.37	4.0	154.
11.3	*1804	3389	4.83		3.15	6.08		
12.0	*1918	3503	7.46		1.30	4.23		
14.2	2415.	4000.	1.79	-4.92	-0.75	2.18		
20.5	3415.	5000.	-3.31	-5.10	-0.76	2.16		
26.8	4415.	6000.	-10.07	-6.76	-3.69	-0.77		

UTAH UAU6

ELEV 1585 METERS

SOUNDING ID 3468

E 11/18/76

TIME 13:52MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

IME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	1.0	0.0	1.0	270.
0.5	76.	1661.	1.6	1.5	2.2	227.
1.0	238.	1823.	3.3	1.4	3.6	246.
1.5	315.	1900.	0.5	-1.9	2.0	347.
2.0	391.	1976.	0.1	-3.3	3.3	358.
2.5	467.	2052.	-1.1	-3.1	3.3	20.
3.0	543.	2128.	-0.9	-1.4	1.7	32.
3.5	619.	2204.	-0.6	-0.6	0.9	46.
4.0	696.	2281.	-0.1	-1.6	1.6	3.
4.5	772.	2357.	1.1	-0.5	1.2	292.
5.0	848.	2433.	0.6	-0.5	0.7	309.
5.5	924.	2509.	1.0	-1.2	1.6	321.
6.0	1000.	2585.	1.6	-2.8	2.7	324.
6.5	1077.	2662.	-1.1	2.8	3.0	159.
7.0	1153.	2738.	-1.3	3.0	3.3	157.
7.5	1229.	2814.	-0.9	3.5	3.6	166.
8.0	1305.	2890.	-1.4	3.9	4.2	161.
8.5	1381.	2966.	-1.8	3.7	4.1	154.
9.0	1458.	3043.	-1.7	3.5	3.9	154.
9.5	1534.	3119.	-1.7	3.7	4.0	156.
0.0	1610.	3195.	-1.9	3.7	4.2	153.
0.5	1690.	3275.	-0.8	4.2	4.2	169.
1.0	1767.	3352.	2.9	3.2	4.3	222.
1.5	1843.	3428.	4.4	1.6	4.7	250.
2.0	1919.	3504.	4.7	0.9	4.7	259.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3466

E 11/20/76 TIME 07:09MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-5.94		0.0		4.6	90.
1.0	150	1735	1.40	7.34	5.65	8.58	3.3	137.
2.0	300	1885	3.86	2.47	3.74	6.66	2.7	174.
2.3	* 342	1927	4.54		3.36	6.29		
2.7	415.	2000.	4.26	0.59	-1.49	1.44	3.6	192.
3.3	500.	2085.	3.70	-0.75	-1.12	1.81	3.6	186.
6.0	915.	2500.	3.69	-0.22	0.68	4.61	2.7	256.
9.3	1415.	3000.	3.50	0.02	0.0	2.93	4.2	283.
5.8	2415.	4000.	-0.89	-4.40	-0.38	2.55		
2.4	3415.	5000.	-6.62	-5.73	-2.70	0.23		
8.9	4415.	6000.	-12.84	-6.22	-2.74	0.19		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3466

E 11/20/76 TIME 07:09MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-4.6	-0.0	4.6	90.
0.5	76.	1661.	-2.1	3.6	4.2	150.
1.0	152.	1737.	-2.2	2.4	3.3	136.
1.5	229.	1814.	-0.5	1.4	1.5	161.
2.0	305.	1890.	-0.3	2.8	2.8	175.
2.5	381.	1966.	0.9	3.6	3.7	194.
3.0	457.	2042.	0.5	3.5	3.5	189.
3.5	533.	2118.	0.2	3.7	3.7	183.
4.0	610.	2195.	-0.3	3.7	3.8	176.
4.5	686.	2271.	-0.9	2.6	2.7	199.
5.0	762.	2347.	2.0	2.3	3.1	221.
5.5	838.	2423.	2.7	2.3	3.6	229.
6.0	914.	2499.	2.6	0.6	2.6	256.
6.5	991.	2576.	4.4	0.7	4.4	279.
7.0	1067.	2652.	6.8	0.1	6.8	271.
7.5	1143.	2728.	7.0	1.7	7.2	284.
8.0	1219.	2804.	6.6	0.5	6.6	274.
8.5	1295.	2880.	5.3	0.0	5.3	270.
9.0	1372.	2957.	4.3	0.3	4.3	273.
9.5	1448.	3033.	3.9	1.5	4.2	291.
0.0	1524.	3109.	4.4	2.6	5.1	300.
0.5	1600.	3185.	3.7	3.3	4.9	312.
1.0	1676.	3261.	3.5	5.5	6.5	327.
1.5	1753.	3338.	5.0	6.5	8.5	322.
2.0	1829.	3414.	5.4	6.2	8.2	319.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3463

E 11/20/76

TIME 14:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

IME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		13.47		0.0		1.5	270.
0.5	* 76	1661	15.56		2.69	5.61		
1.0	150	1735	14.83	1.37	-1.78	1.15	M	M
2.0	300	1885	13.84	-1.00	-1.61	1.32	M	M
2.7	415.	2000.	13.38	-0.46	-0.72	2.21	M	M
3.3	500.	2085.	12.94	-0.44	-1.08	1.85	M	M
6.0	915.	2500.	12.75	-0.20	0.36	3.29	M	M
9.3	1415.	3000.	9.61	-3.13	-0.36	2.56	M	M
5.8	2415.	4000.	3.89	-5.72	-3.36	-0.43		
2.3	3415.	5000.	-0.13	-4.01	-0.57	2.36		
8.5	4415.	6000.	-5.94	-5.81	0.38	3.31		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3463

E 11/20/76

TIME 14:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

IME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.5	0.0	1.5	270.



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3461

E 11/22/76 TIME 07:10MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

IME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-6.80		0.0		2.6	135.
1.0	150	1735	-1.24	5.56	10.23	13.16	5.1	150.
1.8	* 266	1851	0.80		2.95	5.88		
2.0	300	1885	1.00	2.23	2.16	5.09	4.1	186.
2.7	415.	2000.	2.00	0.50	1.77	4.70	2.6	199.
3.3	500	2085	2.20	0.70	0.39	3.32	3.4	212.
6.0	915.	2500.	3.80	1.10	0.98	3.91	6.0	231.
9.3	1415.	3000.	2.90	-0.40	-0.39	2.53	2.3	204.
5.8	2415.	4000.	-1.79	-4.68	-4.72	-1.80		
1.6	3415.	5000.	-10.20	-8.41	-1.97	0.96		
7.8	4415.	6000.	-17.00	-6.80	-0.79	2.14		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3461

E 11/22/76 TIME 07:10MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

IME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.8	1.8	2.6	135.
0.5	76.	1661.	-1.4	1.8	2.3	143.
1.0	152.	1737.	-2.6	4.5	5.2	150.
1.5	229.	1814.	-1.1	5.3	5.5	168.
2.0	305.	1890.	0.5	4.0	4.0	187.
2.5	381.	1966.	0.5	2.3	2.3	192.
3.0	457.	2042.	1.3	2.6	2.9	207.
3.5	533.	2118.	2.2	3.0	3.8	217.
4.0	610.	2195.	1.7	4.2	4.5	203.
4.5	686.	2271.	2.1	5.9	5.2	200.
5.0	762.	2347.	1.8	5.2	5.5	194.
5.5	838.	2423.	2.8	4.0	4.9	215.
6.0	914.	2499.	4.6	3.8	6.0	231.
6.5	991.	2576.	5.6	3.5	6.6	238.
7.0	1067.	2652.	2.5	3.2	4.1	218.
7.5	1143.	2728.	-0.2	3.4	3.5	176.
8.0	1219.	2804.	-1.2	4.1	4.3	163.
8.5	1295.	2880.	-1.1	3.9	4.1	164.
9.0	1372.	2957.	0.2	2.9	2.9	184.
9.5	1448.	3033.	1.2	1.4	1.8	219.
10.0	1524.	3109.	1.1	0.7	1.3	237.
10.5	1600.	3185.	2.4	0.3	2.4	264.
11.0	1676.	3261.	3.2	0.7	3.3	258.
11.5	1753.	3338.	4.4	0.8	4.5	260.
12.0	1829.	3414.	5.4	0.1	5.4	269.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3459

TE 11/22/76

TIME 14:40MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		14.21		0.0		2.1	315.
0.8	150	1735	11.53	-2.69	-2.49	0.44	1.2	108.
1.8	300	1885	10.68	-0.85	1.96	4.88	1.0	349.
2.0	* 334	1919	10.60		1.96	4.88		
2.5	415.	2000.	11.51	-2.26	-4.82	-1.89	0.6	256.
3.0	500	2085	10.68	-2.25	-4.30	-1.37	2.5	234.
4.0	* 722	2307	9.33		2.15	5.08		
4.5	* 798	2383	11.33		3.94	6.87		
5.0	* 874	2459	11.33		3.20	6.13		
5.3	915.	2500.	12.96	2.23	0.0	2.93	8.8	272.
5.5	* 950	2535	12.96		0.0	2.93		
5.5	1415.	3000.	8.87	-3.59	0.0	2.93	9.8	272.
6.0	* 2224	3809	3.02		-1.29	1.64		
6.8	* 2338	3923	4.89		-2.39	5.32		
7.3	2415.	4000.	3.97	-5.36	-2.21	0.72		
8.0	3415.	5000.	-3.43	-7.40	-1.89	1.04		
9.1	4415.	6000.	-7.69	-4.25	-1.53	1.40		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3459

E 11/22/76

TIME 14:40MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.5	-1.5	2.1	315.
0.5	76.	1661.	0.4	-1.0	1.0	339.
1.0	182.	1767.	-0.2	-1.3	1.3	9.
1.5	258.	1843.	0.2	-1.1	1.1	351.
2.0	334.	1919.	0.2	-0.8	0.9	347.
2.5	410.	1995.	0.4	0.1	0.4	257.
3.0	487.	2072.	1.9	1.4	2.3	233.
3.5	629.	2214.	3.4	1.6	3.7	244.
4.0	722.	2307.	4.2	1.5	4.5	251.
4.5	798.	2383.	6.1	0.3	6.1	267.
5.0	875.	2460.	8.8	-0.7	8.8	275.
5.5	951.	2536.	8.7	-0.1	8.7	271.
6.0	1027.	2612.	9.1	-0.1	9.1	270.
6.5	1103.	2688.	8.9	0.4	8.9	268.
7.0	1193.	2778.	9.6	0.2	9.6	269.
7.5	1307.	2892.	11.0	0.6	11.0	267.
8.0	1395.	2980.	10.0	0.0	10.0	270.
8.5	1472.	3057.	8.9	-1.5	9.1	279.
9.0	1548.	3133.	7.6	-1.4	7.7	281.
9.5	1624.	3209.	6.7	-0.3	6.7	273.
0.0	1701.	3286.	6.5	-0.7	6.5	276.
0.5	1791.	3376.	7.4	-1.4	7.6	281.
1.0	1867.	3452.	6.7	-1.8	6.9	285.
1.5	1943.	3528.	6.8	-2.0	7.1	286.
2.0	2019.	3604.	6.3	-2.6	6.8	292.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3457

TE 11/24/76 TIME 07:15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-9.87		0.0		0.5	135.
1.0	150	1735	-4.21	5.66	10.11	13.04	0.3	79.
1.8	* 266	1851	0.35		3.78	6.71		
2.0	300	1885	0.64	4.84	2.46	5.38	0.7	172.
2.7	415	2000.	1.31	0.19	2.26	5.19	1.1	162.
3.3	500	2085	1.77	0.94	3.19	6.12	0.5	182.
4.0	* 609	2194	2.93		2.44	5.37		
6.0	915	2500.	2.55	0.97	-0.19	2.74	4.3	199.
9.3	1415.	3000.	1.60	-1.14	-1.88	1.05	6.6	236.
5.8	2415.	4000.	-0.79	-2.39	-1.89	1.03		
2.3	3415.	5000.	-8.59	-7.79	-1.74	1.18		
8.7	4415.	6000.	-14.84	-6.25	-1.97	0.96		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3457

E 11/24/76 TIME 07:15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-0.4	0.4	0.5	135.
0.5	76.	1661.	-0.3	1.9	1.9	172.
1.0	152.	1737.	-0.3	-0.1	0.3	76.
1.5	229.	1814.	-0.5	0.3	0.6	124.
2.0	305.	1890.	-0.1	0.8	0.8	176.
2.5	381.	1966.	-0.4	1.3	1.4	162.
3.0	457.	2042.	-0.2	0.7	0.7	163.
3.5	533.	2118.	0.1	0.3	0.3	196.
4.0	610.	2195.	4.4	2.4	5.0	241.
4.5	686.	2271.	3.2	2.1	3.8	236.
5.0	762.	2347.	3.1	2.3	3.9	234.
5.5	838.	2423.	2.2	2.9	3.6	217.
6.0	914.	2499.	1.4	4.0	4.3	199.
6.5	991.	2576.	1.8	5.0	5.3	200.
7.0	1067.	2652.	1.7	5.7	5.9	197.
7.5	1143.	2728.	2.4	4.3	5.0	209.
8.0	1219.	2804.	4.1	3.7	5.5	228.
8.5	1295.	2880.	4.5	3.2	5.6	235.
9.0	1372.	2957.	5.1	3.4	6.1	236.
9.5	1448.	3033.	5.7	3.9	6.9	236.
10.0	1524.	3109.	6.1	2.4	6.6	248.
10.5	1600.	3185.	7.5	0.7	7.5	265.
11.0	1676.	3261.	8.7	0.7	8.7	265.
11.5	1753.	3338.	8.3	0.2	8.4	269.
12.0	1829.	3414.	10.2	-1.0	10.2	276.



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3458

E 11/24/76

TIME 13:51MST

ASCENT RATE 500' FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		15.28		0.0		2.6	270.
0.8	150	1735	12.75	-2.53	-0.72	2.21	3.0	272.
1.8	300	1885	12.73	-0.02	1.80	4.73	3.1	338.
2.5	415.	2000.	12.09	-0.32	0.90	3.83	2.2	338.
3.1	500	2085	12.62	0.21	1.80	4.73	1.1	291.
5.8	915.	2500.	11.63	-0.97	-1.99	0.94	5.6	212.
9.0	1415.	3000.	8.39	-3.04	-1.83	1.10	8.9	237.
5.5	2415.	4000.	4.27	-4.33	-2.42	0.51		
5.0	3415.	5000.	-1.09	-5.36	-0.57	2.36		
8.3	4415.	6000.	-7.70	-6.61	-3.86	-0.93		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3458

E 11/24/76

TIME 13:51MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	2.6	0.0	2.6	270.
0.5	76.	1661.	2.6	0.6	2.7	258.
1.0	183.	1768.	3.1	-0.4	3.1	278.
1.5	260.	1845.	0.9	-2.4	2.5	338.
2.0	336.	1921.	1.3	-3.3	3.5	339.
2.5	412.	1997.	0.8	-2.1	2.2	339.
3.0	488.	2073.	0.9	-0.4	1.0	293.
3.5	564.	2149.	1.5	-0.1	1.5	276.
4.0	641.	2226.	0.9	0.3	0.9	249.
4.5	717.	2302.	1.4	1.4	2.0	226.
5.0	793.	2378.	1.5	3.2	3.5	205.
5.5	869.	2454.	2.6	4.1	4.9	213.
6.0	945.	2530.	3.2	5.2	6.1	212.
6.5	1022.	2607.	3.0	4.6	5.5	213.
7.0	1098.	2683.	3.6	4.8	6.0	217.
7.5	1174.	2759.	4.2	4.6	6.2	223.
8.0	1255.	2840.	5.3	4.6	7.1	229.
8.5	1332.	2917.	6.2	5.1	8.1	231.
9.0	1412.	2997.	7.4	4.9	8.9	237.
9.5	1492.	3077.	7.8	4.1	8.9	242.
10.0	1568.	3153.	8.0	3.5	8.8	246.
10.5	1644.	3229.	8.5	2.7	8.9	252.
11.0	1720.	3305.	9.5	2.6	9.9	255.
11.5	1796.	3381.	8.8	2.3	9.1	255.
12.0	1873.	3458.	9.6	2.3	9.8	257.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3469

E 11/26/76 TIME 07:12MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.0	SFC		-2.83		0.0		8.2	45.
0.8	150	1735	-5.68	-2.86	-3.66	-0.73		
1.6	300	1885	-7.35	-1.66	-5.41	-2.48		
2.4	450	2000.	-8.56	-1.21	-5.03	-2.11		
3.2	600	2085.	-9.53	-0.97	-2.91	0.02		
4.0	750	2500.	-13.23	-3.70	-2.35	0.58		
4.8	900	3000.	-14.63	-1.40	-1.57	1.36		
5.6	1050	4000.	-21.68	-7.04	-2.39	0.54		
6.4	1200	5000.	-27.79	-6.11	-1.61	1.32		
7.2	1350	6000.	-36.44	-8.65	-5.10	-2.17		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3469

E 11/26/76 TIME 07:12MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-5.8	-5.8	8.2	45.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3462

TE 11/26/76 TIME 14:05MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-0.13		0.0		10.3	45.
1.0	150	1735	-0.36	0.48	-0.76	2.17	3.8	52.
2.0	300	1885	-0.32	-0.68	-0.76	2.17	3.7	54.
3.0	450	2000	-1.76	-0.48	-3.42	-0.49	3.9	53.
4.0	600	2085	-2.05	-1.25	-2.09	-0.83	5.4	52.
5.0	750	2500	-6.53	-3.11	-4.23	-1.31	5.5	45.
6.0	900	3000	-11.36	-5.70	-5.85	-2.92	6.9	24.
7.0	1050	4000	-15.04	-4.19	-0.39	2.53		
8.0	1200	5000	-21.89	-6.85	-1.99	0.93		
9.0	1350	6000	-30.05	-8.16	-1.42	1.51		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3462

TE 11/26/76 TIME 14:05MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-7.3	-7.3	10.3	45.
0.5	76.	1661.	-2.4	-1.6	2.9	55.
1.0	152.	1737.	-3.0	-2.4	3.9	51.
1.5	229.	1814.	-3.1	-2.1	3.7	56.
2.0	305.	1890.	-2.1	-1.6	2.6	53.
2.5	381.	1966.	-2.5	-1.9	3.2	53.
3.0	457.	2047.	-3.9	-3.0	4.9	52.
3.5	534.	2134.	-4.6	-3.8	6.0	51.
4.0	612.	2210.	-4.5	-3.5	5.7	52.
4.5	689.	2290.	-5.1	-4.2	6.6	50.
5.0	767.	2373.	-4.5	-3.2	5.6	47.
5.5	844.	2458.	-4.0	-3.8	5.5	46.
6.0	921.	2543.	-3.7	-4.2	5.6	41.
6.5	998.	2628.	-2.7	-4.6	5.3	30.
7.0	1075.	2713.	-1.8	-4.7	5.1	20.
7.5	1152.	2798.	-1.2	-4.1	4.2	16.
8.0	1229.	2883.	-2.7	-5.5	6.1	27.
8.5	1306.	2968.	-2.8	-7.8	8.3	20.
9.0	1383.	3053.	-1.5	-8.1	8.2	10.



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3460

TE 11/28/76 TIME 08:10MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.3	SFC		-17.85		0.0		2.6	90.
0.8	* 38	1623	-19.06		0.0	0.0		
1.3	* 114	1699	-16.64		0.33	9.26		
1.8		1735	-16.64	1.21	5.52	8.45	0.7	144.
2.3	* 152	1737	-16.64		5.52	8.45		
2.8	* 228	1813	-14.84		5.51	8.44		
3.3		1885	-13.86	2.79	2.55	5.48	2.3	195.
3.8	415.	2000.	-12.95	0.90	1.18	4.10	2.8	198.
4.3	500.	2085.	-12.94	0.01	0.20	2.73	3.2	191.
4.8	915.	2500.	-14.64	-1.09	-3.73	0.81	3.1	220.
5.3	1415.	3000.	-15.04	-1.01	1.77	4.70		
5.8	2415.	4000.	-16.14	-1.10	-1.97	0.95		
6.3	3415.	5000.	-18.65	-2.51	0.0	2.93		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3460

E 11/28/76 TIME 08:10MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-2.6	-0.0	2.6	90.
0.5	76.	1661.	-1.0	0.4	1.1	111.
1.0	152.	1737.	-0.4	0.6	0.7	145.
1.5	229.	1814.	-0.2	0.6	0.7	175.
2.0	305.	1890.	0.6	0.2	2.3	196.
2.5	381.	1966.	1.1	0.5	2.7	203.
3.0	457.	2042.	0.6	0.0	3.0	191.
3.5	533.	2118.	0.6	0.3	3.4	190.
4.0	610.	2195.	1.6	0.7	3.1	210.
4.5	686.	2271.	1.9	0.6	3.2	216.
5.0	762.	2347.	1.9	0.4	3.1	218.
5.5	838.	2423.	1.8	0.1	3.8	220.
6.0	914.	2499.	2.0	0.4	3.1	220.
6.5	991.	2576.	1.5	0.2	1.9	233.
7.0	1076.	2663.	5.5	0.0	6.1	296.
7.5	1154.	2739.	6.3	0.0	9.2	317.
8.0	1230.	2815.	4.4	0.2	5.4	306.
8.5	1307.	2892.	8.1	0.1	8.7	291.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3451

E 11/28/76

TIME 13:52MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-0.13		0.0		1.5	270.
0.7	150	1735	-3.83	-3.70	-3.83	-0.90	3.0	77.
1.2	300	1885	-4.76	-0.93	-4.23	-1.30	3.9	74.
1.8	415.	2000.	-6.43	-1.59	-4.62	-1.69	1.9	108.
2.2	500	2085.	-6.91	-0.56	-3.86	-0.93	1.2	111.
4.4	915.	?2500.	-9.77	-2.86	-0.58	2.34	5.1	209.
7.7	1415.	?3000.	-11.55	-1.78	-0.98	1.95	8.3	275.
4.2	2415.	4000.	-14.04	-2.49	-1.96	0.97		
4.5	*2456	4041	-14.84		2.35	5.28		
5.5	*2609	4194	-10.86		0.98	3.91		
0.4	3415.	5000.	-15.34	-1.30	-2.36	0.56		
6.7	4415.	6000.	-16.04	-0.70	-0.79	2.14		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3451

E 11/28/76

TIME 13:52MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.5	0.0	1.5	270.
0.5	76.	1661.	-1.8	-0.3	1.8	80.
1.0	260.	1845.	-4.6	-1.4	4.8	73.
1.5	347.	1932.	-2.7	-0.8	2.8	74.
2.0	454.	2039.	-1.1	0.8	1.4	128.
2.5	579.	2164.	-0.8	-0.1	0.8	83.
3.0	682.	2267.	-0.6	-1.0	1.1	31.
3.5	780.	2365.	-1.7	-1.6	2.3	47.
4.0	857.	2442.	-3.0	2.6	4.0	131.
4.5	933.	2518.	4.4	3.3	5.5	233.
5.0	1009.	2594.	5.0	2.7	5.7	242.
5.5	1085.	2670.	7.9	3.1	8.5	249.
6.0	1161.	2746.	8.8	0.5	8.9	267.
6.5	1238.	2823.	11.7	-1.4	11.8	277.
7.0	1314.	2899.	10.7	-1.1	10.7	276.
7.5	1390.	2975.	8.9	-0.9	8.9	276.
8.0	1466.	3051.	7.1	-0.5	7.1	274.
8.5	1542.	3127.	5.2	0.4	5.2	266.
9.0	1619.	3204.	4.2	1.2	4.4	254.
9.5	1695.	3280.	4.4	1.3	4.6	253.
0.0	1771.	3356.	5.7	0.8	5.8	262.
0.5	1847.	3432.	6.9	-1.1	6.9	279.
1.0	1923.	3508.	6.3	-2.1	6.7	288.
1.5	2000.	3585.	6.3	-4.8	7.9	308.
2.0	2076.	3661.	5.9	-5.7	8.2	314.



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3453

E 11/30/76

TIME 07:19MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-14.64		0.0		1.5	135.
1.0	150	1735	-10.38	4.26	7.20	10.13	3.0	167.
2.0	300	1885	-7.13	3.25	6.94	9.87	4.0	175.
2.5	* 380	1965	-5.16		3.66	6.59		
3.0	415.	2000.	-5.26	1.97	-1.15	1.78	4.6	219.
3.3	500	2085.	-5.73	-0.57	-1.92	1.01	5.4	240.
4.0	915.	2500.	-7.61	-1.49	-1.35	1.58	8.3	261.
4.3	* 1104	2689.	-7.90		5.01	7.94		
4.8	* 1181	2766.	-5.16		5.59	8.51		
5.3	1415.	3000.	-5.75	1.47	-0.77	2.16	1.9	252.
5.8	2415.	4000.	-9.68	3.93	-0.19	2.73		
6.3	3415.	5000.	-14.94	-5.26	-2.16	0.76		
6.8	4415.	6000.	-20.06	-5.13	-4.38	-1.45		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3453

E 11/30/76

TIME 07:19MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.1	1.1	1.5	135.
0.5	76.	1661.	0.4	2.3	2.3	170.
1.0	152.	1737.	0.7	2.9	3.0	167.
1.5	229.	1814.	0.3	3.2	3.2	174.
2.0	305.	1890.	0.3	4.0	4.1	175.
2.5	381.	1966.	2.2	3.7	4.3	210.
3.0	457.	2042.	3.7	3.2	4.9	230.
3.5	533.	2118.	5.4	2.2	5.8	248.
4.0	610.	2195.	6.9	2.5	7.4	250.
4.5	686.	2271.	7.5	2.0	7.7	255.
5.0	762.	2347.	9.0	1.1	9.0	263.
5.5	838.	2423.	9.7	0.6	9.8	267.
6.0	914.	2499.	8.2	1.3	8.3	261.
6.5	991.	2576.	6.8	3.3	7.2	251.
7.0	1067.	2652.	6.7	3.5	7.6	243.
7.5	1143.	2728.	5.3	4.9	5.6	250.
8.0	1219.	2804.	5.3	0.7	2.4	253.
8.5	1295.	2880.	0.8	0.8	1.1	228.
9.0	1372.	2957.	0.7	0.6	0.9	233.
9.5	1448.	3033.	2.7	0.0	2.7	265.
10.0	1524.	3109.	2.7	0.2	2.7	273.
10.5	1600.	3185.	0.0	1.5	6.2	284.
11.0	1676.	3261.	7.0	3.3	7.7	295.
11.5	1753.	3338.	8.6	4.8	8.8	301.
12.0	1829.	3414.	8.9	4.8	10.1	299.





UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3440

E 11/30/76

TIME 13:48MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	*S M/S	*D DEG
	SFC		6.99		0.0		2.6	360.
0.9	150	1735	4.94	-2.05	-3.72	-0.79	2.1	350.
1.7	300	1885	3.70	-1.25	-2.24	0.69	3.5	227.
2.4	415.	2000.	2.74	-0.95	-1.87	1.06	2.8	297.
3.0	500	2085.	2.55	-0.20	-1.50	4.42	2.7	318.
3.7	915.	2500.	2.55	0.19	-2.63	0.30	7.5	228.
4.0	1415.	3000.	0.55	-1.41	-2.08	0.85	11.5	280.
5.4	2415.	4000.	-5.45	-0.29	-0.96	1.97		
1.4	3415.	5000.	-13.54	-8.09	-2.35	0.58		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3449

E 11/30/76

TIME 13:48MST

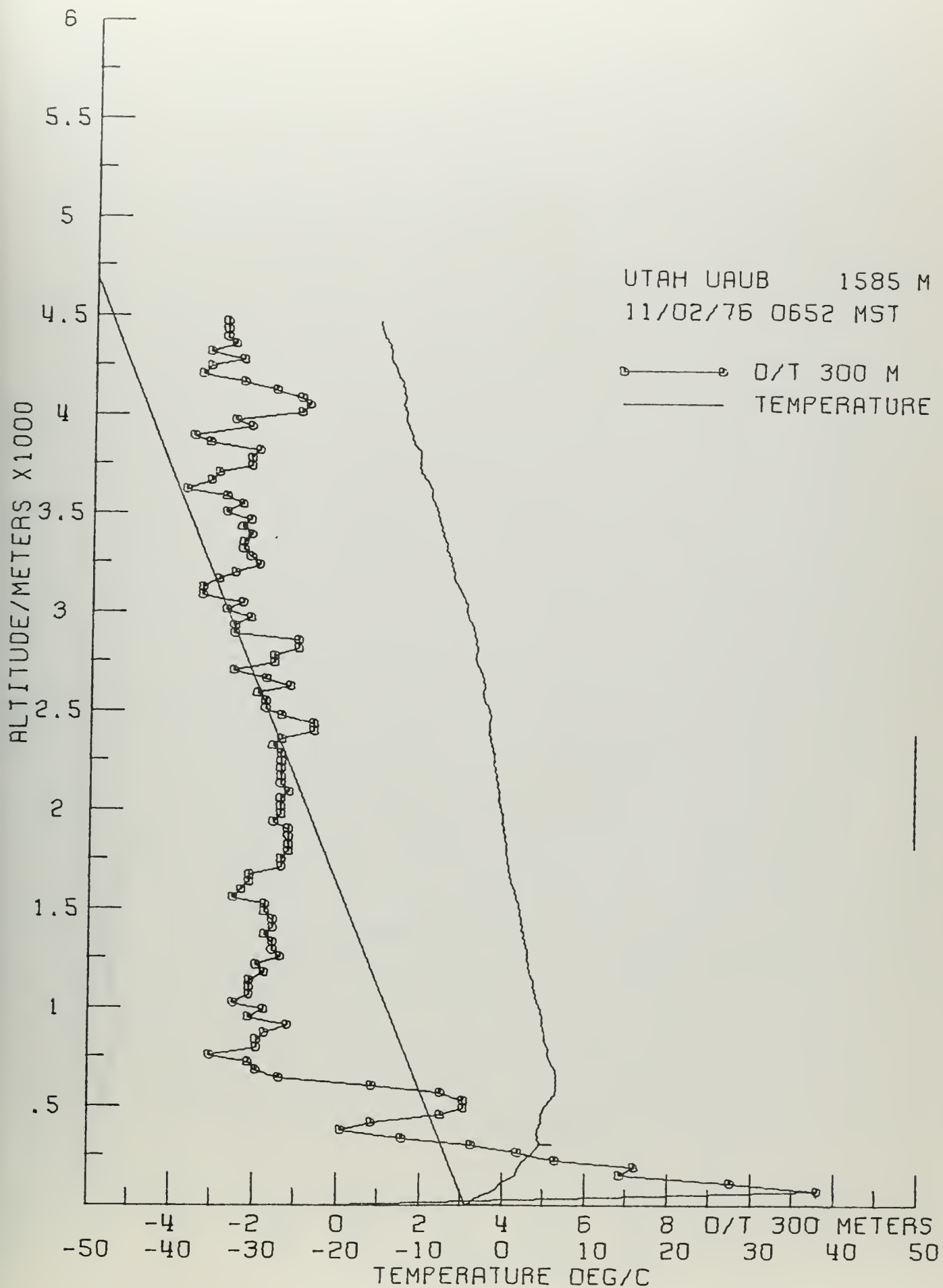
ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

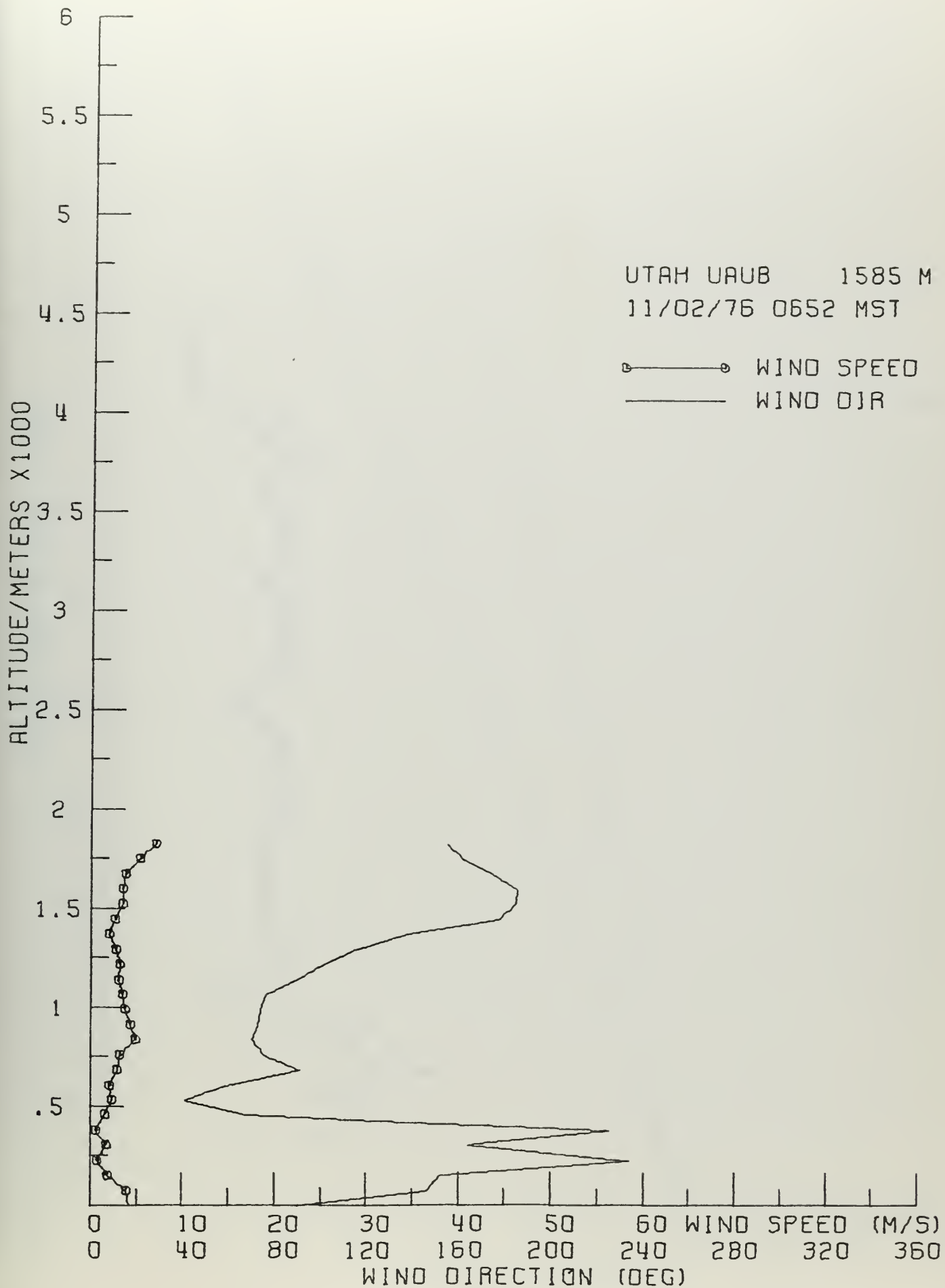
TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	*WD SPEED M/S	*WD DIR DEG
0.0	0.	1585.	0.0	-2.6	2.6	360.
0.5	76.	1661.	0.4	-1.4	1.4	342.
1.0	177.	1762.	0.3	-2.4	2.4	353.
1.5	272.	1857.	0.2	-3.5	3.5	356.
2.0	348.	1933.	-0.4	-3.5	3.5	7.
2.5	424.	2009.	1.0	-2.5	2.7	338.
3.0	501.	2086.	1.8	-2.1	2.7	318.
3.5	577.	2162.	1.4	-1.0	1.7	305.
4.0	653.	2238.	1.4	-0.0	1.5	295.
4.5	729.	2314.	3.0	-0.3	3.0	277.
5.0	805.	2390.	3.6	3.5	5.0	225.
5.5	882.	2467.	4.6	5.2	7.0	222.
6.0	958.	2543.	4.8	4.0	8.2	236.
6.5	1034.	2619.	9.3	3.4	9.9	250.
7.0	1110.	2695.	11.0	1.8	11.1	260.
7.5	1186.	2771.	12.0	0.8	12.7	267.
8.0	1263.	2848.	13.9	-0.9	13.9	274.
8.5	1339.	2924.	11.9	-1.2	11.9	276.
9.0	1415.	3000.	11.3	-2.1	11.5	280.
9.5	1491.	3076.	9.5	-1.4	9.6	262.
10.0	1567.	3152.	9.5	0.1	9.5	270.
10.5	1644.	3229.	9.2	-1.9	9.3	282.
11.0	1720.	3305.	9.1	3.1	9.6	289.
11.5	1796.	3381.	8.9	3.3	9.5	291.
12.0	1878.	3463.	9.6	3.8	10.3	292.





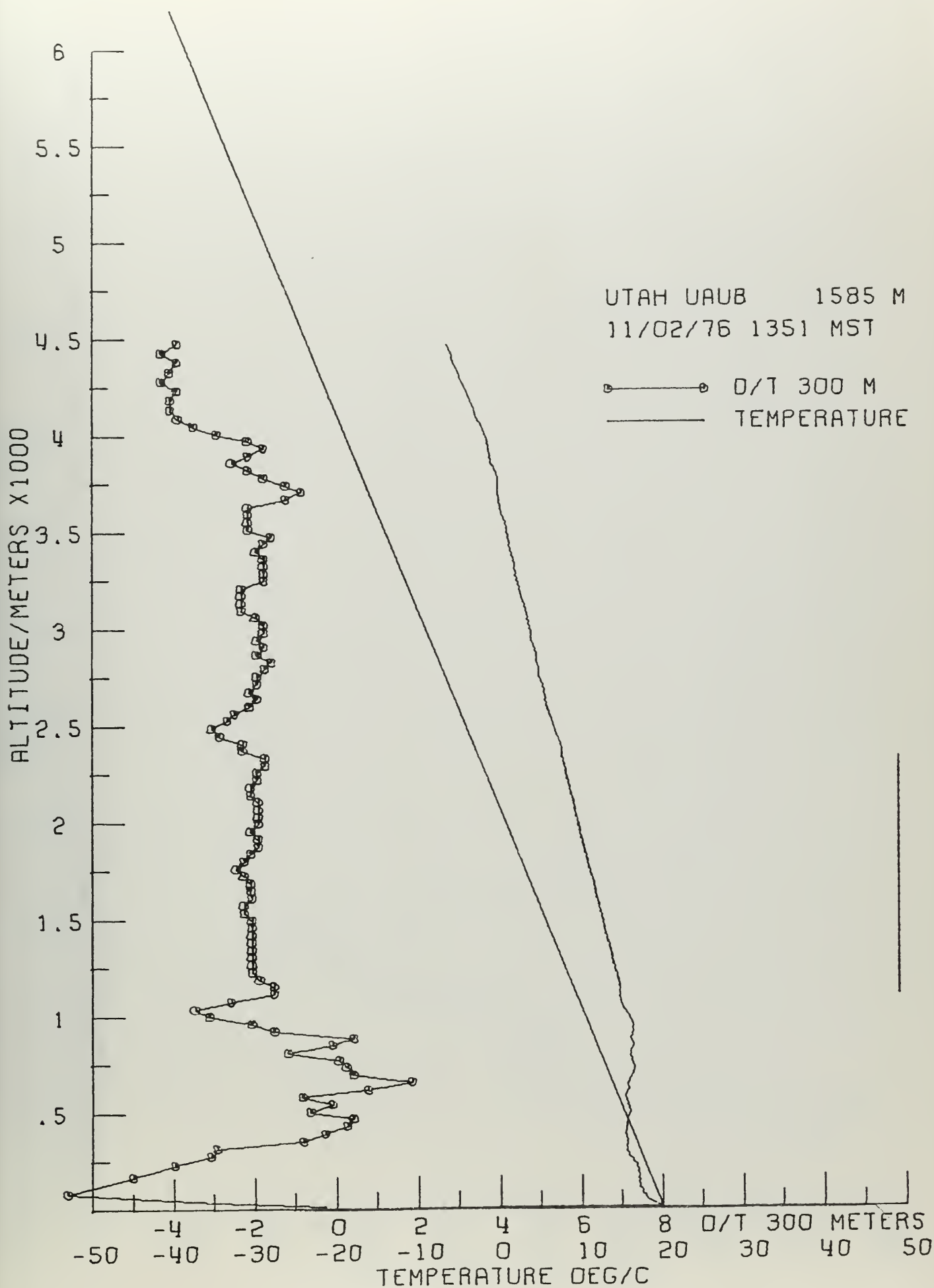




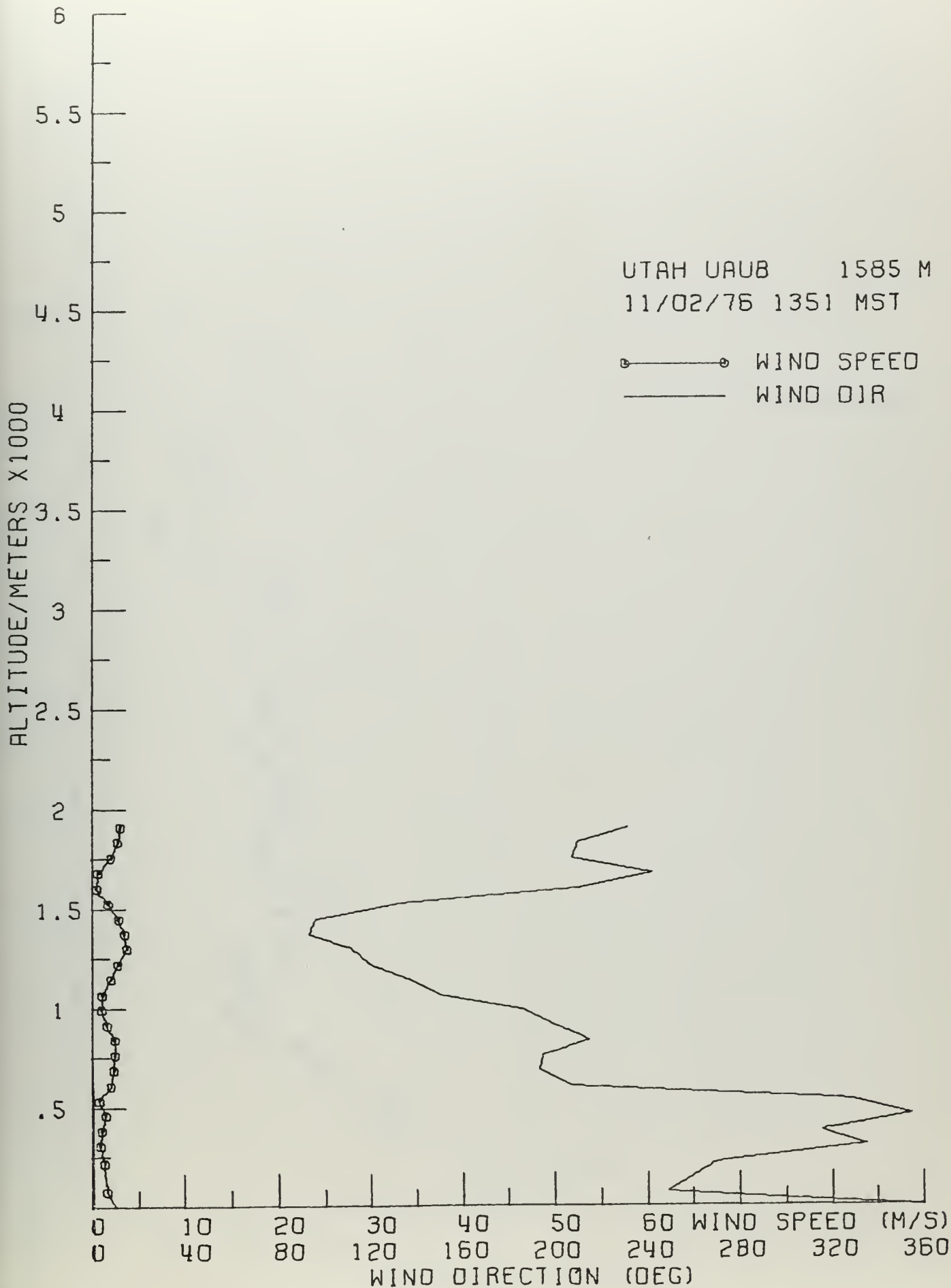




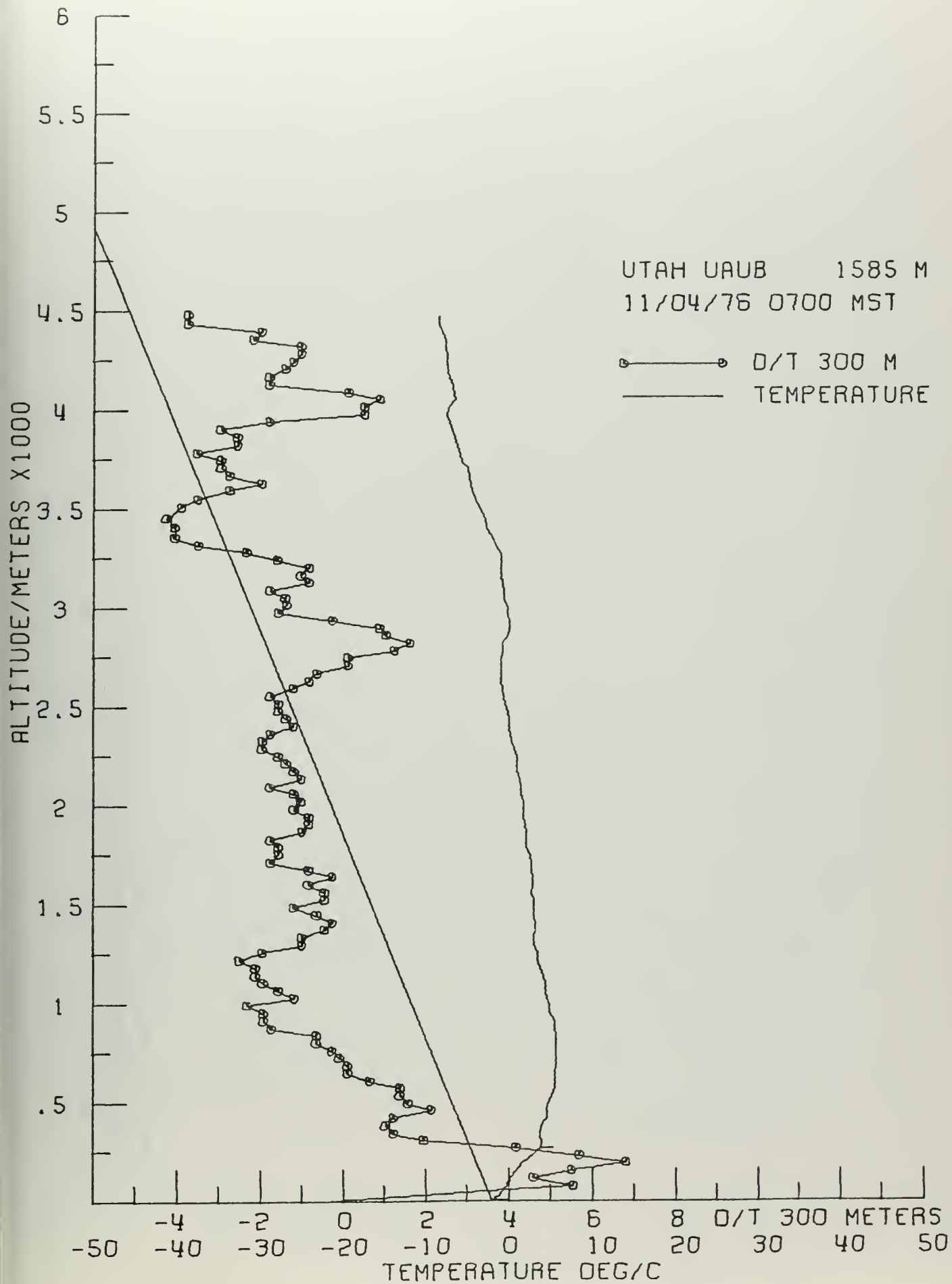






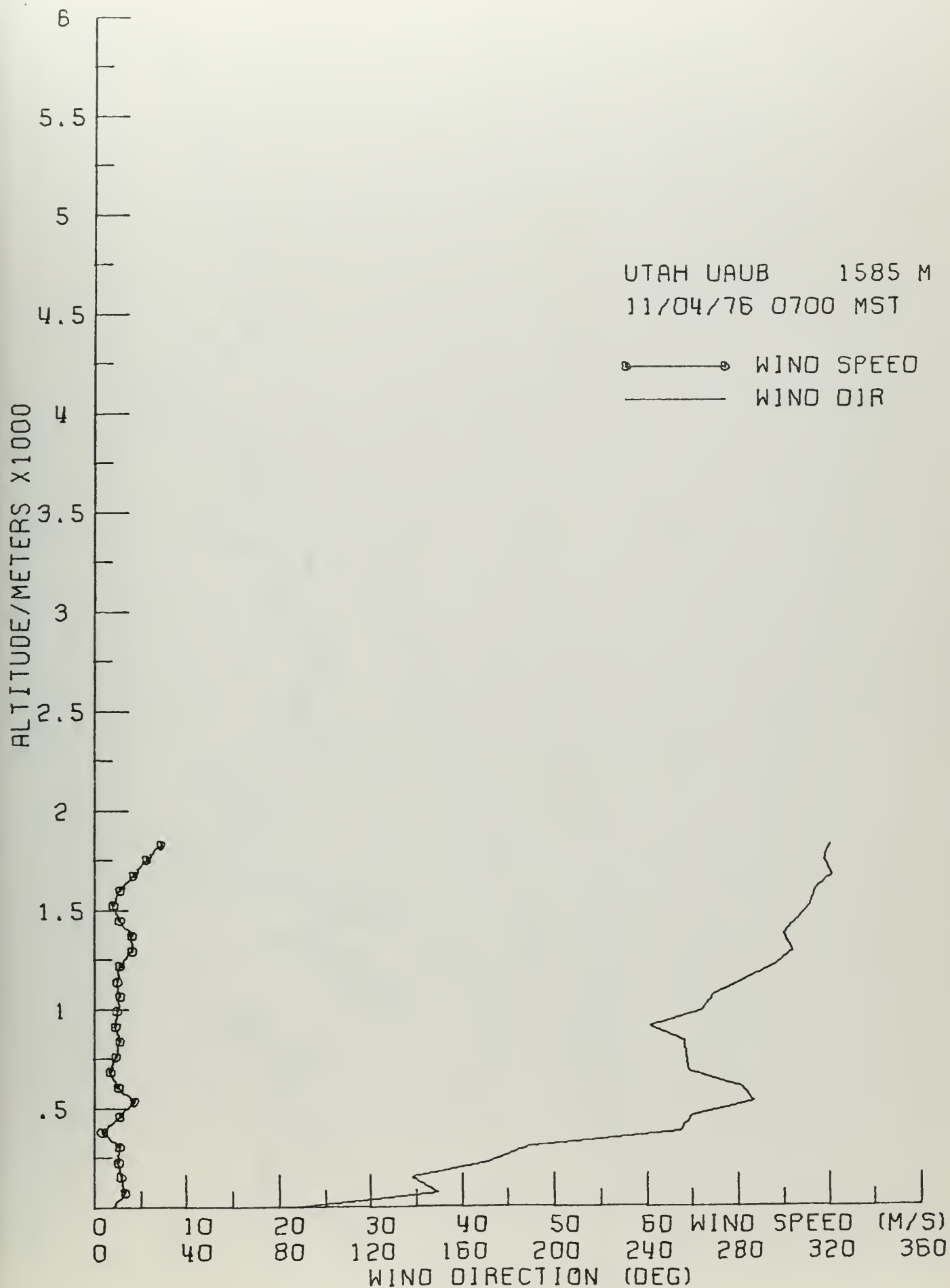




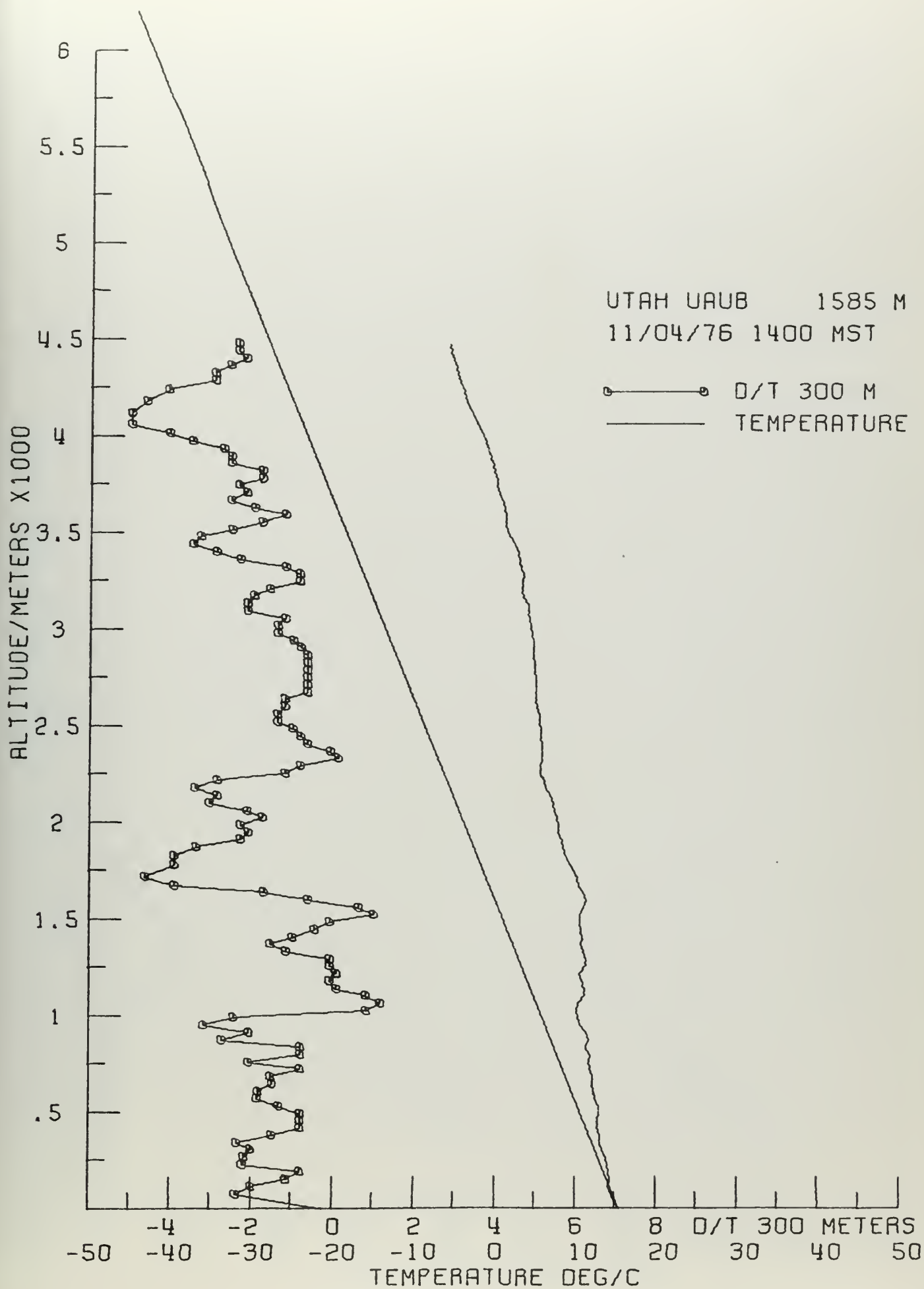




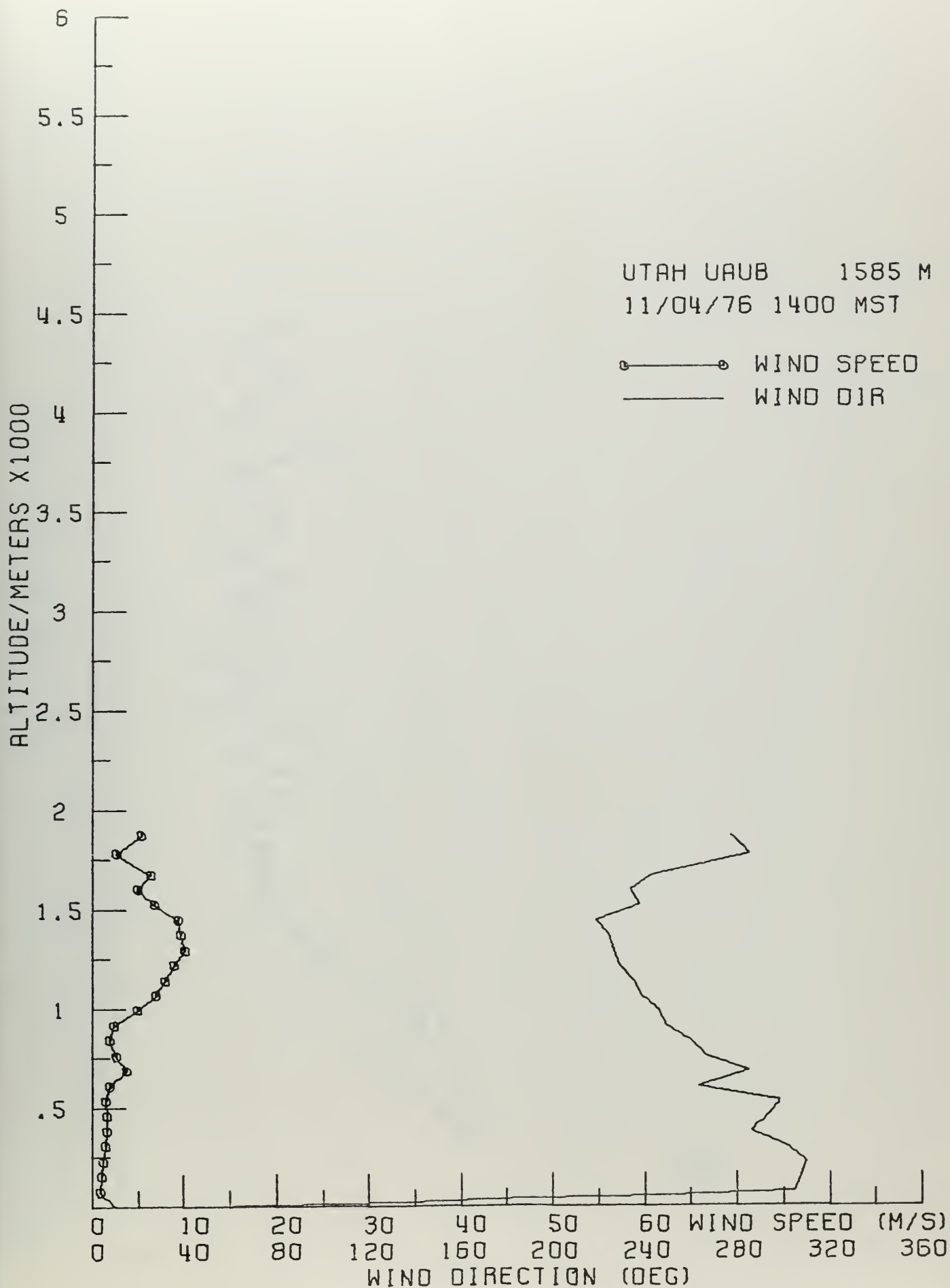






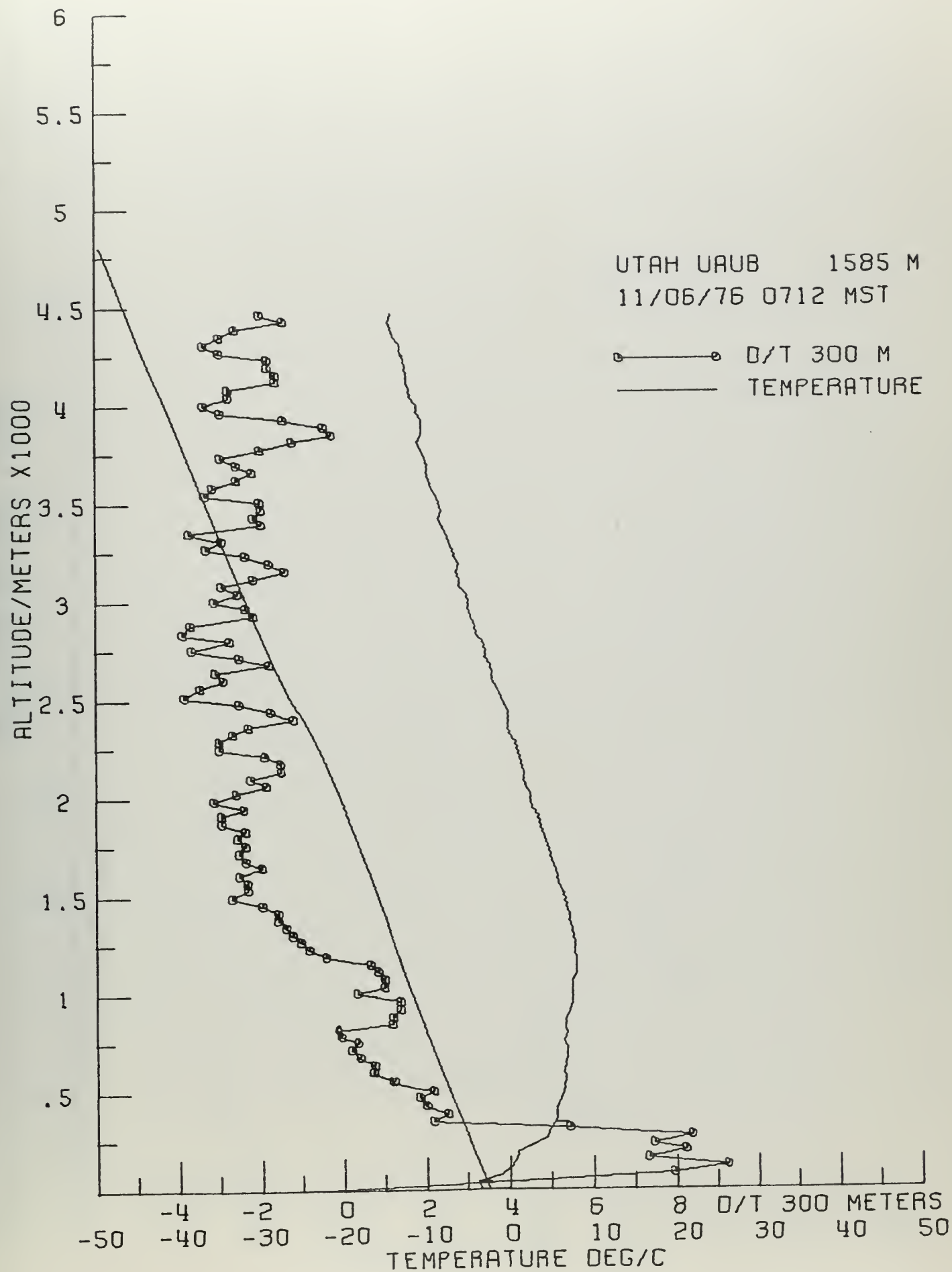




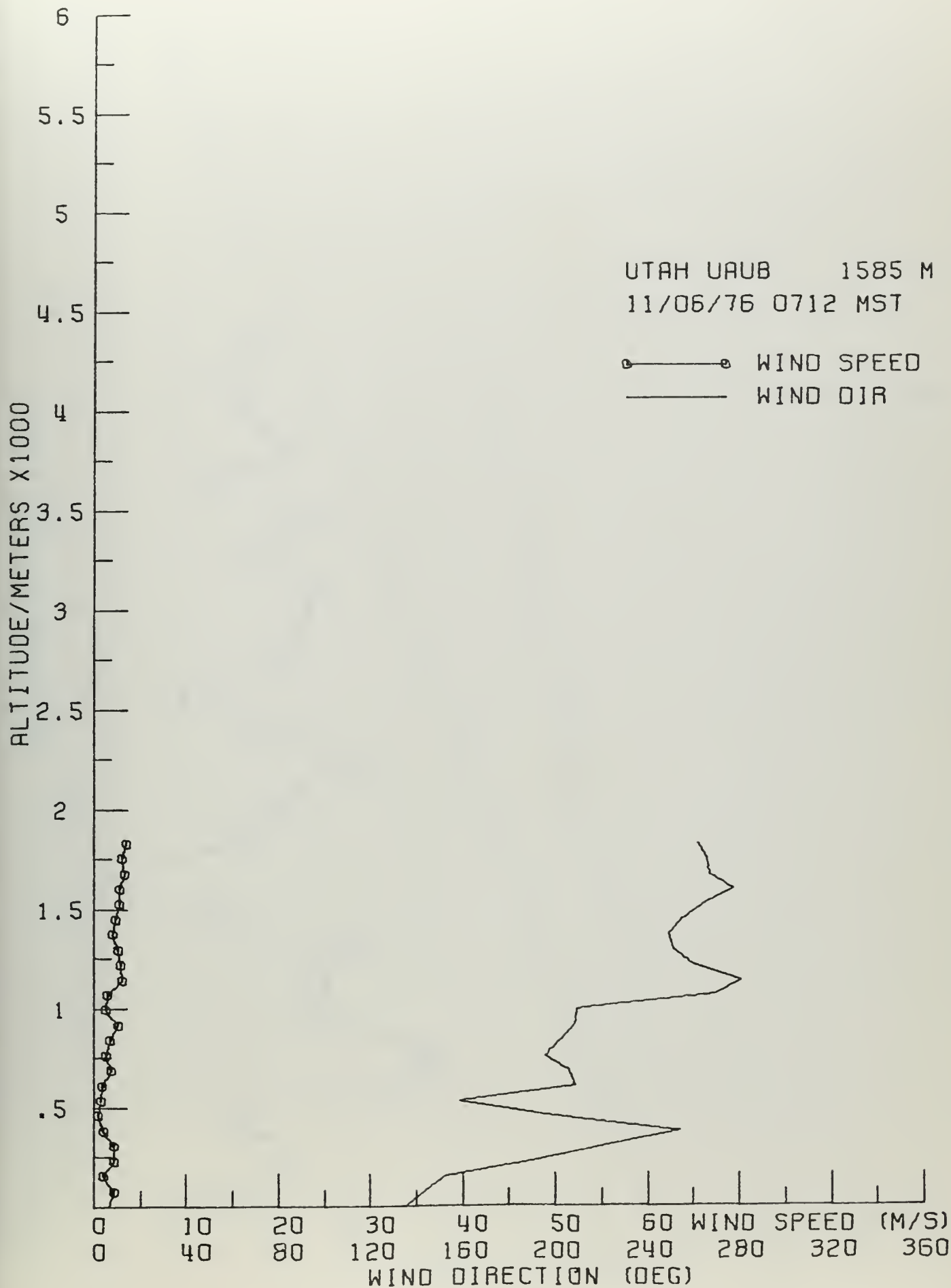










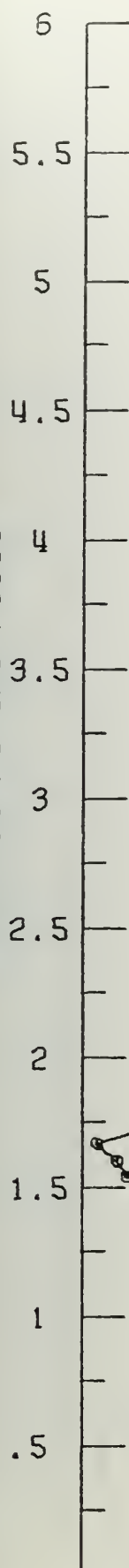




ALTITUDE/METERS X1000

UTAH UAUB 1585 M  
11/06/76 1359 MST

○ — ○ D/T 300 M  
— TEMPERATURE

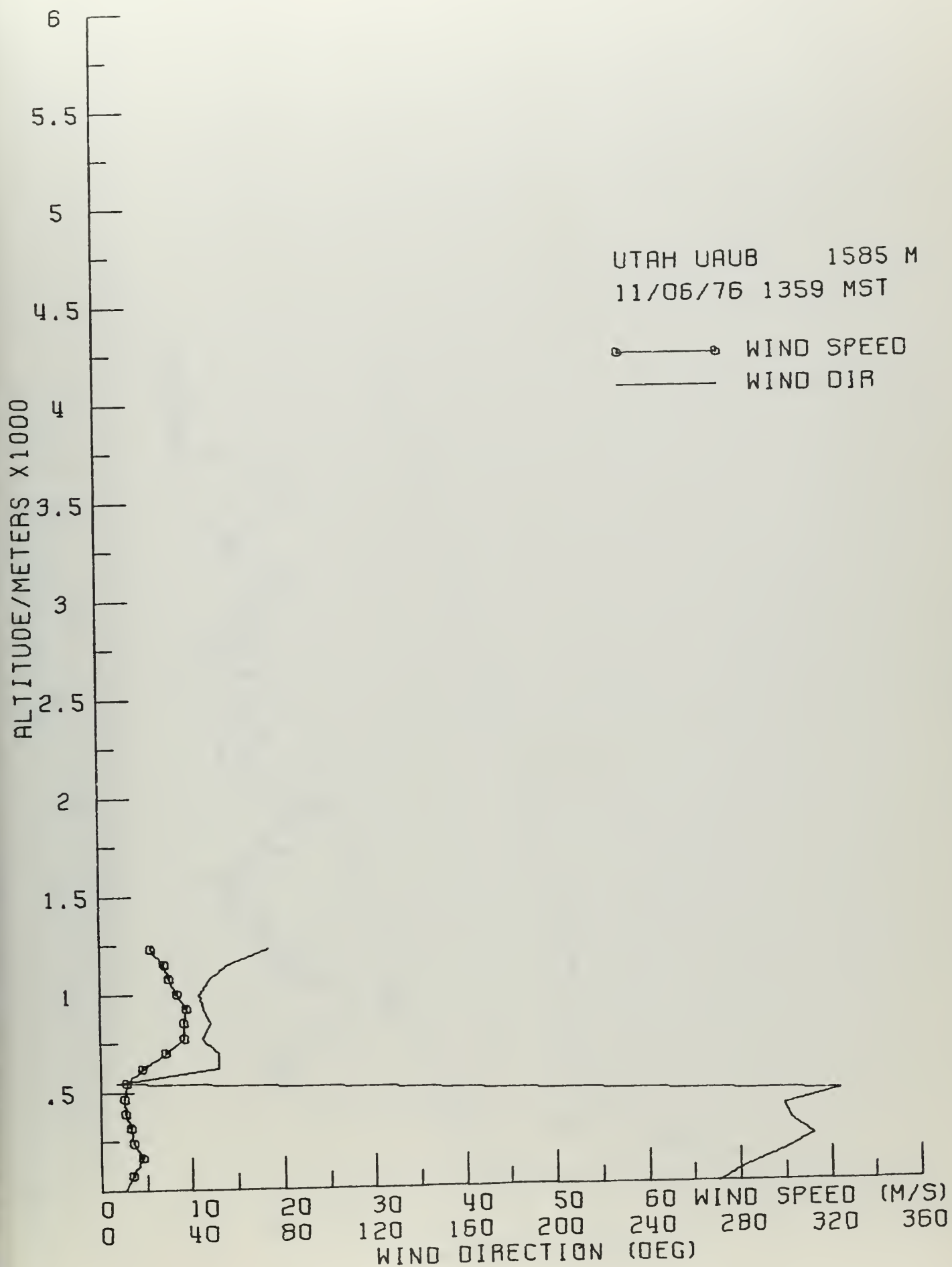


-50 -40 -30 -20 -10 0 10 20 30 40 50 D/T 300 METERS

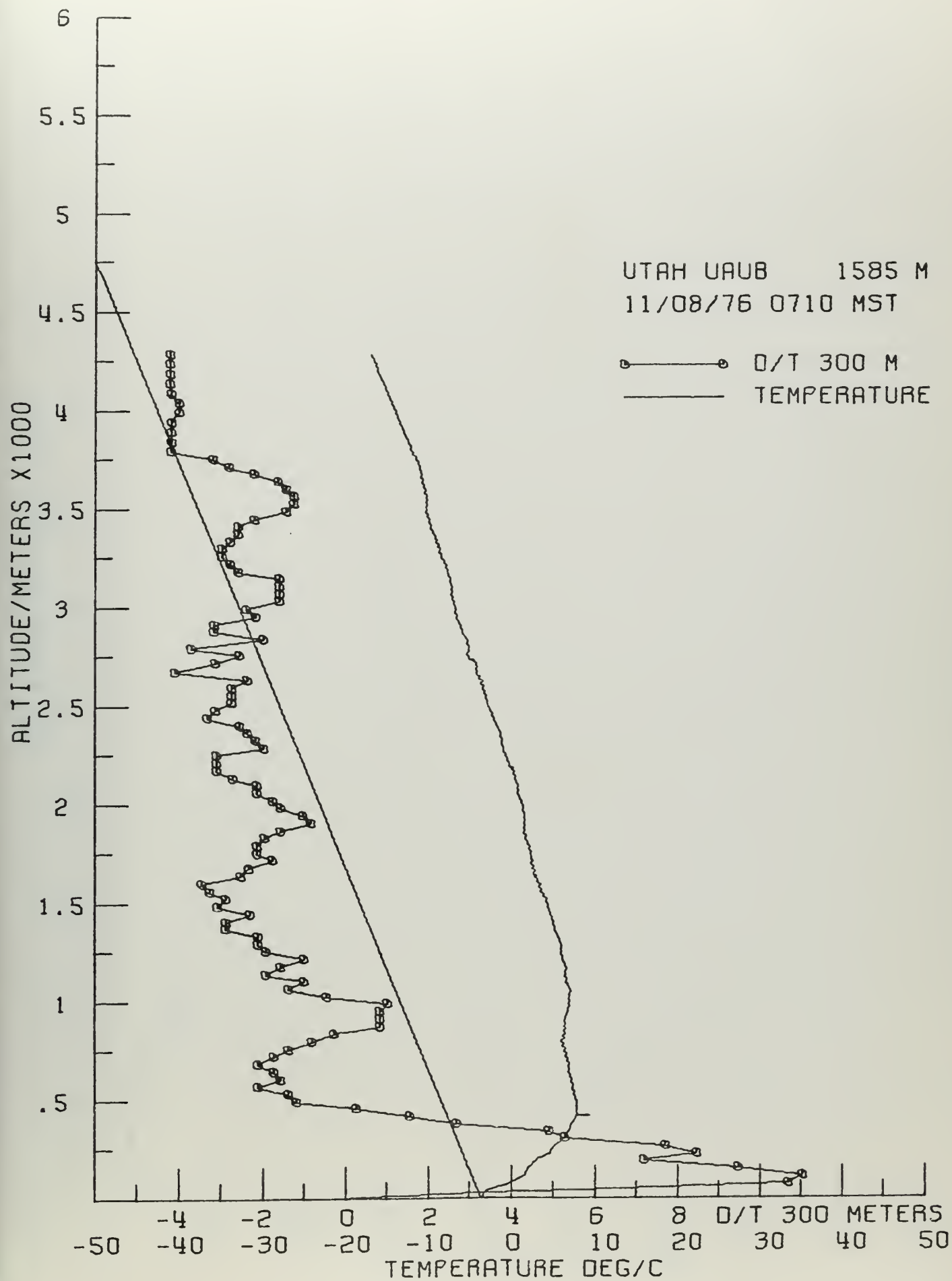
TEMPERATURE DEG/C



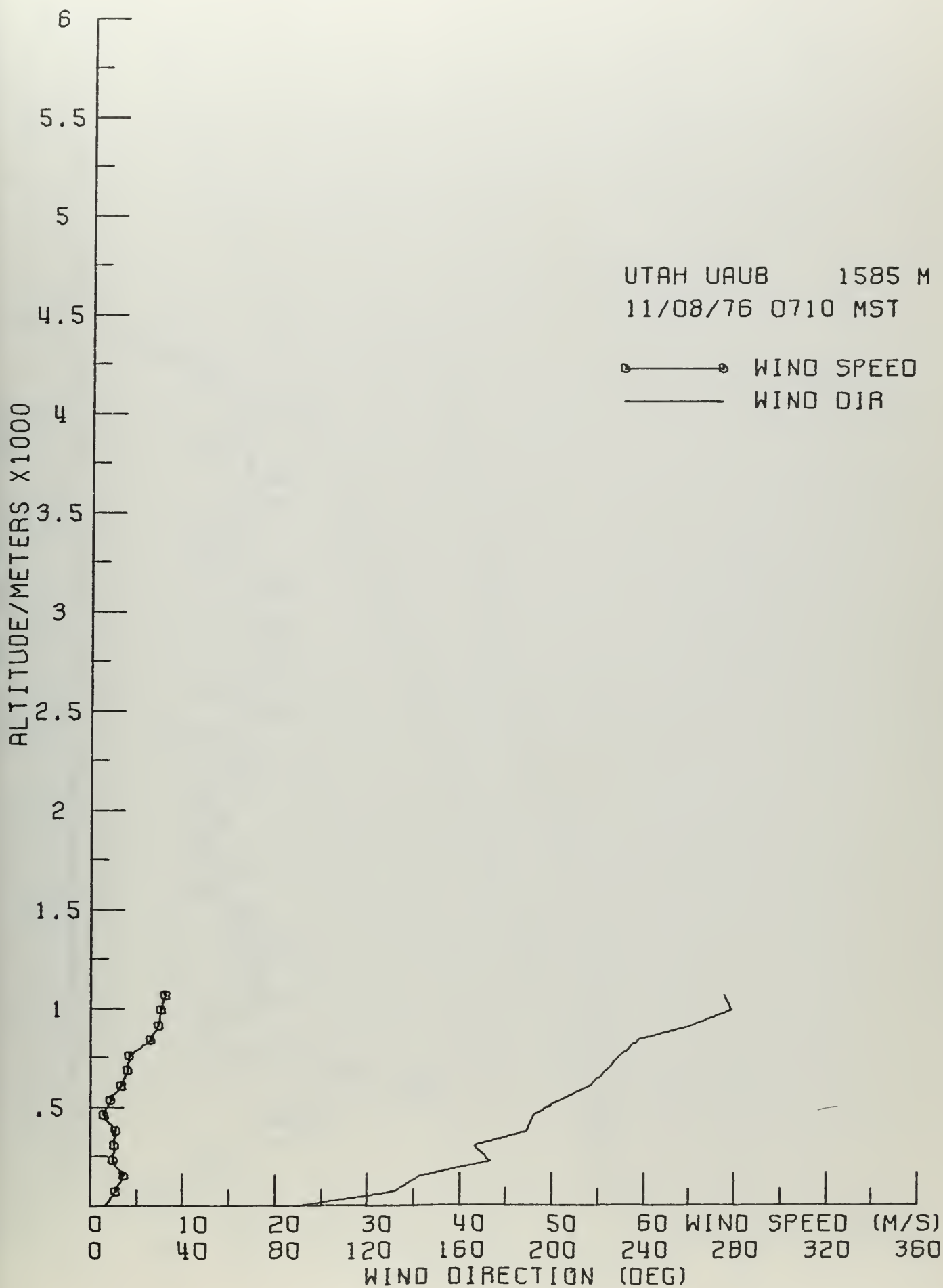






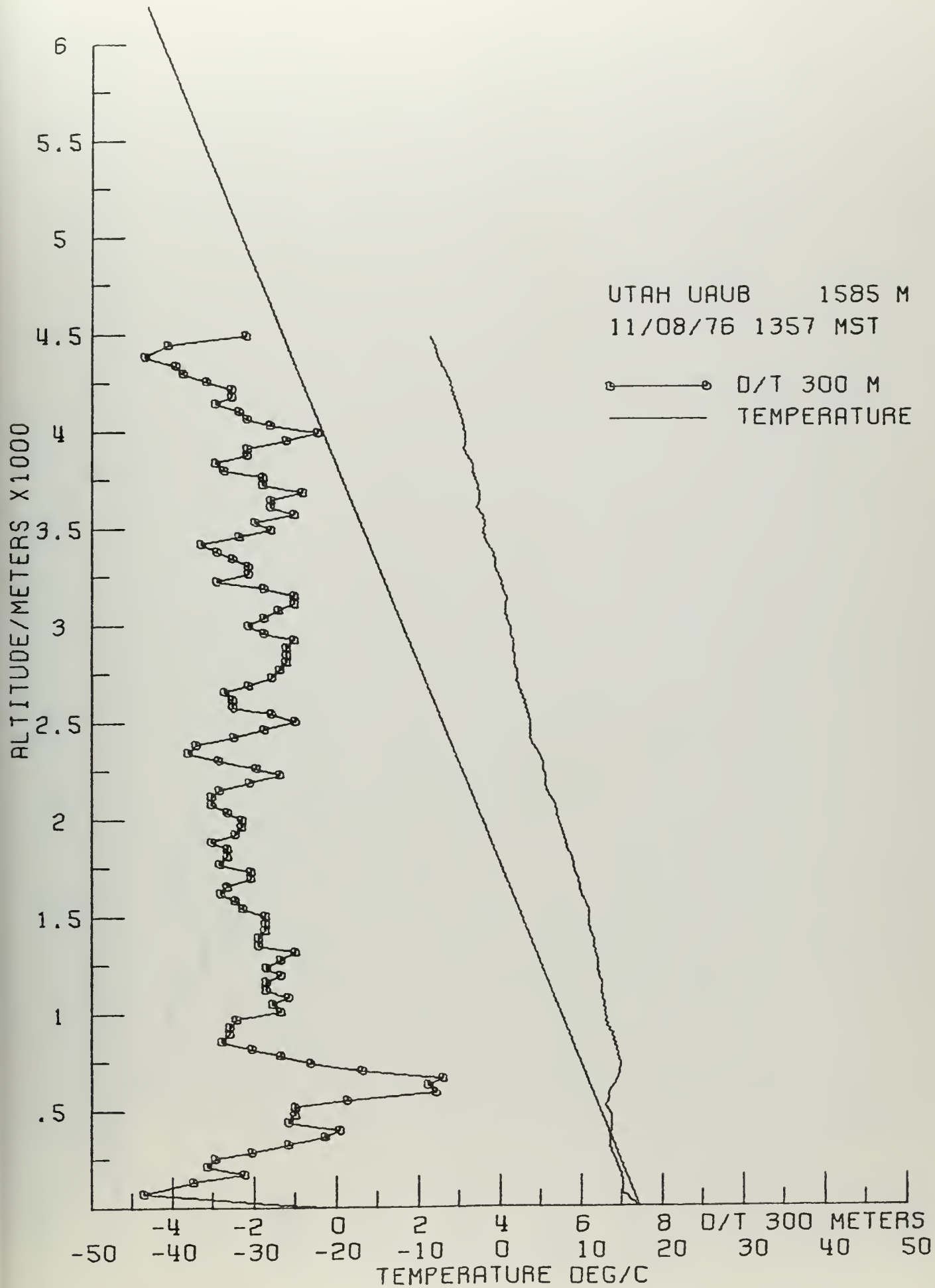




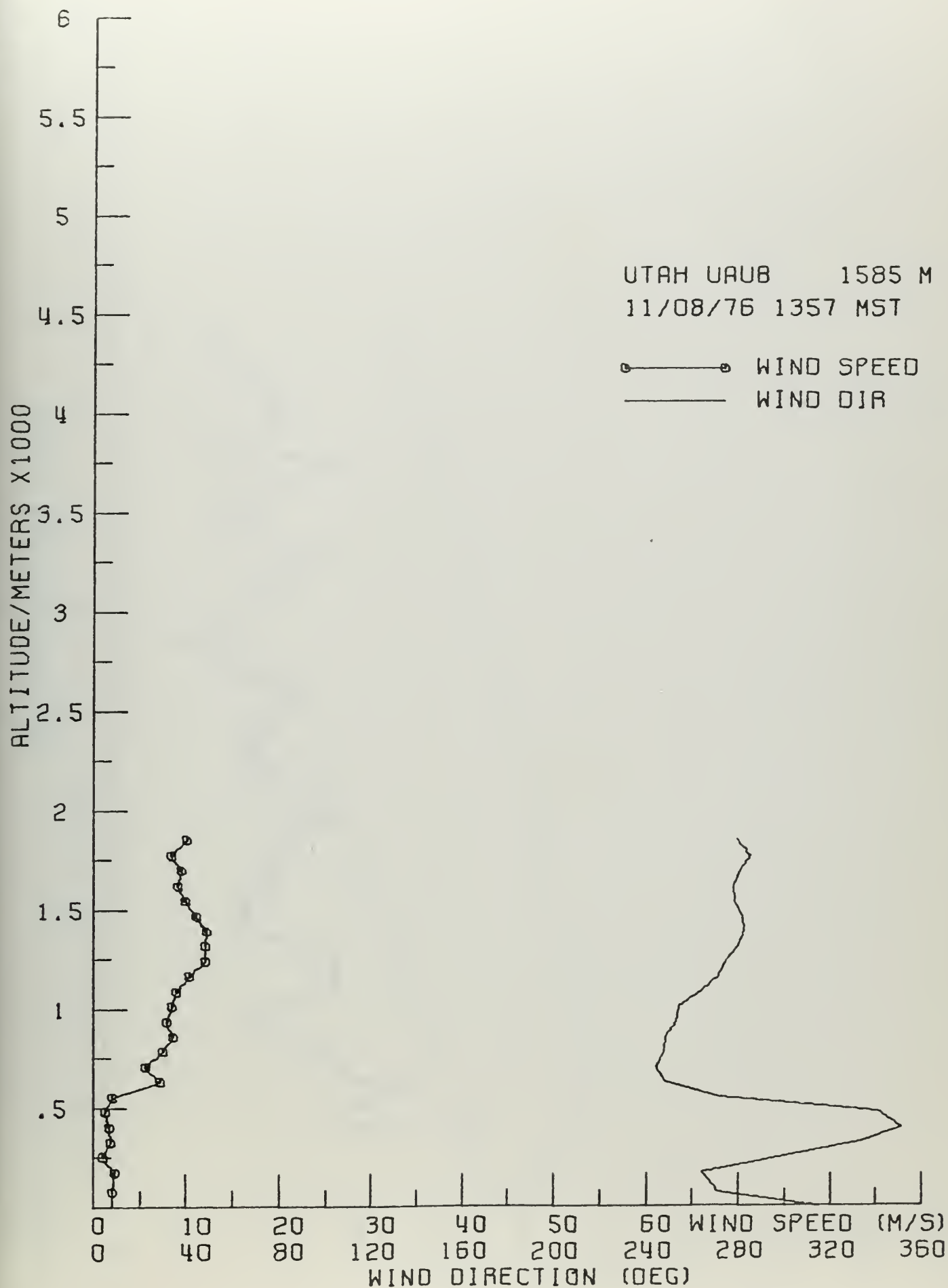




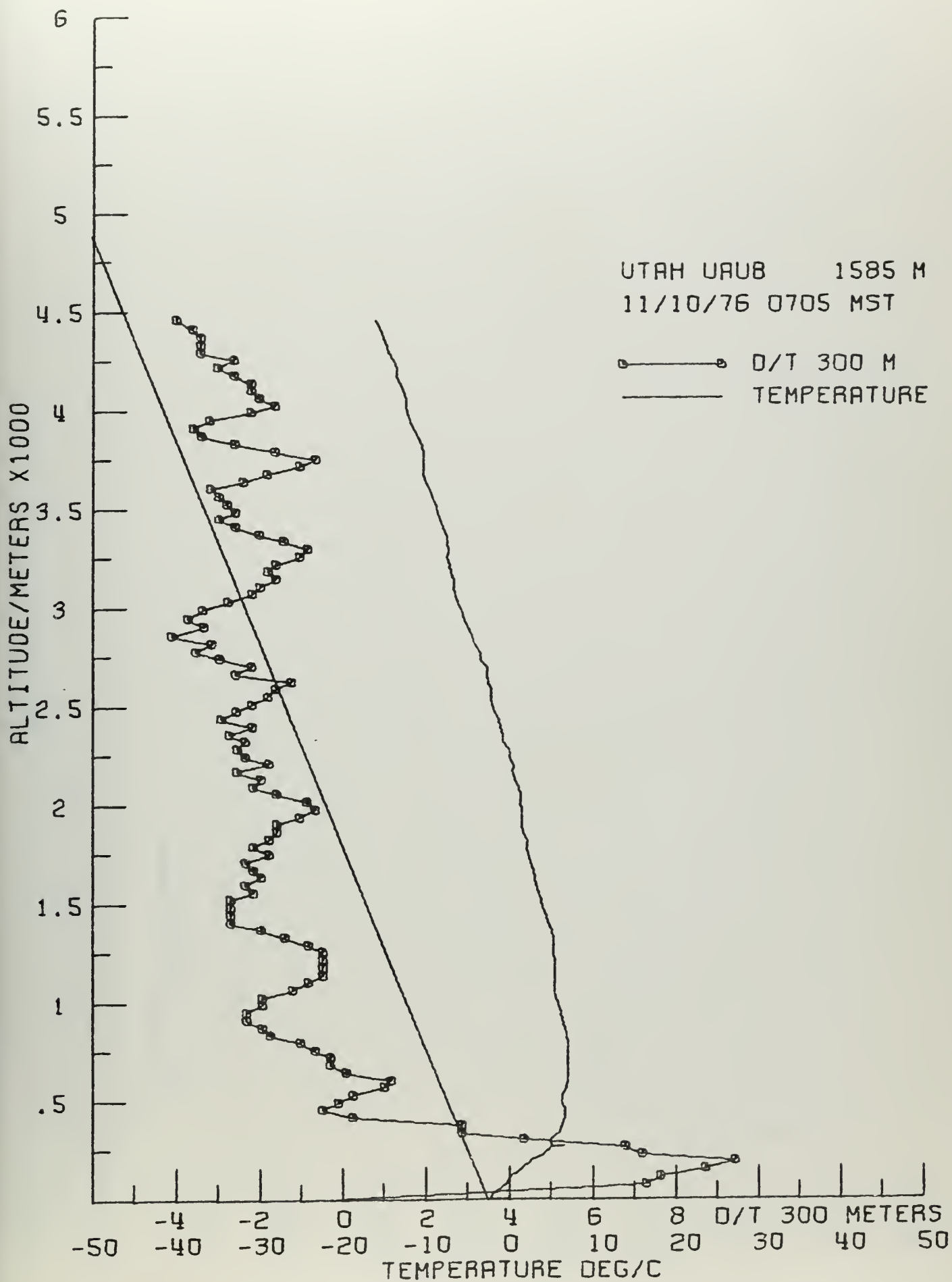






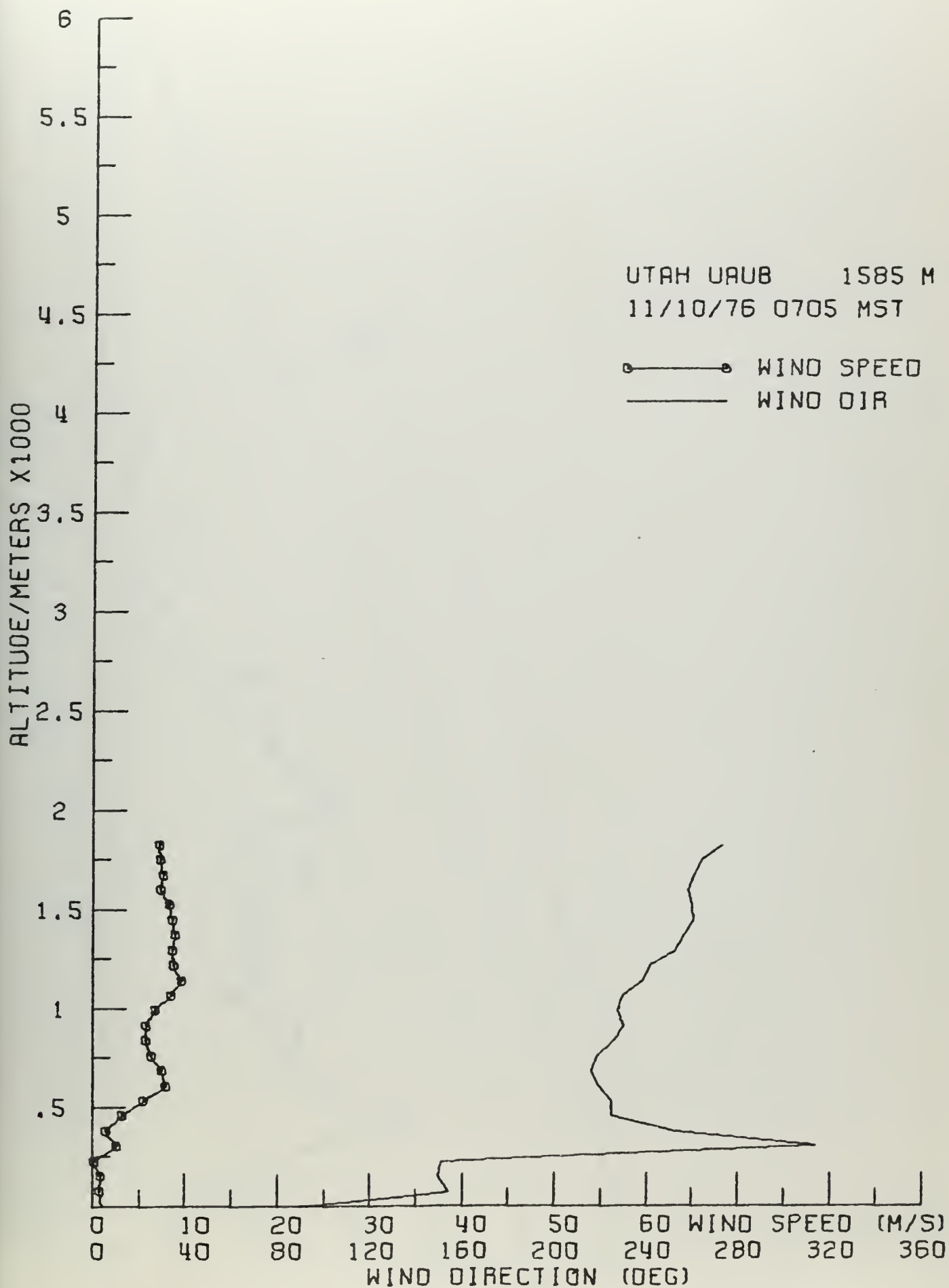




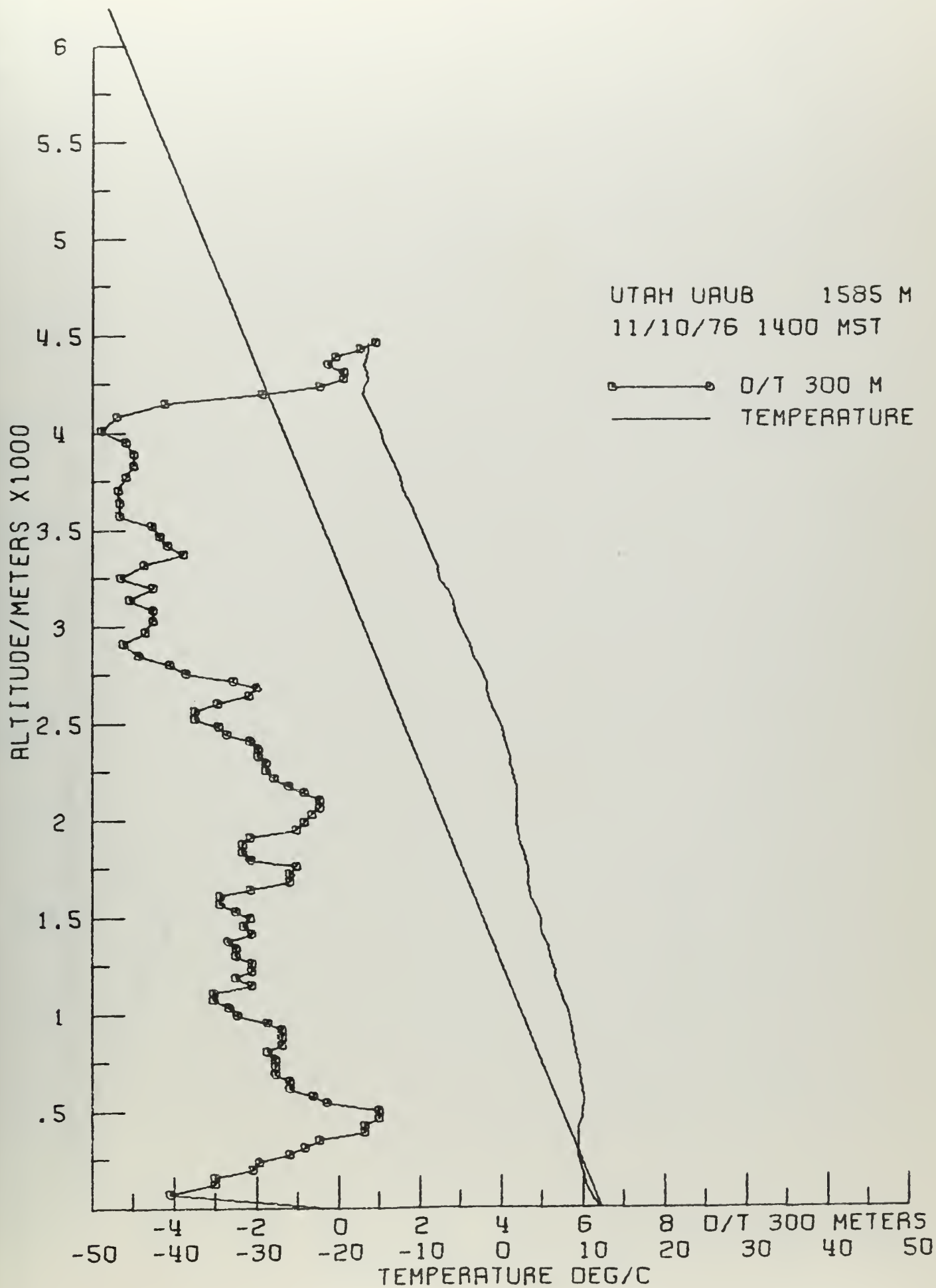




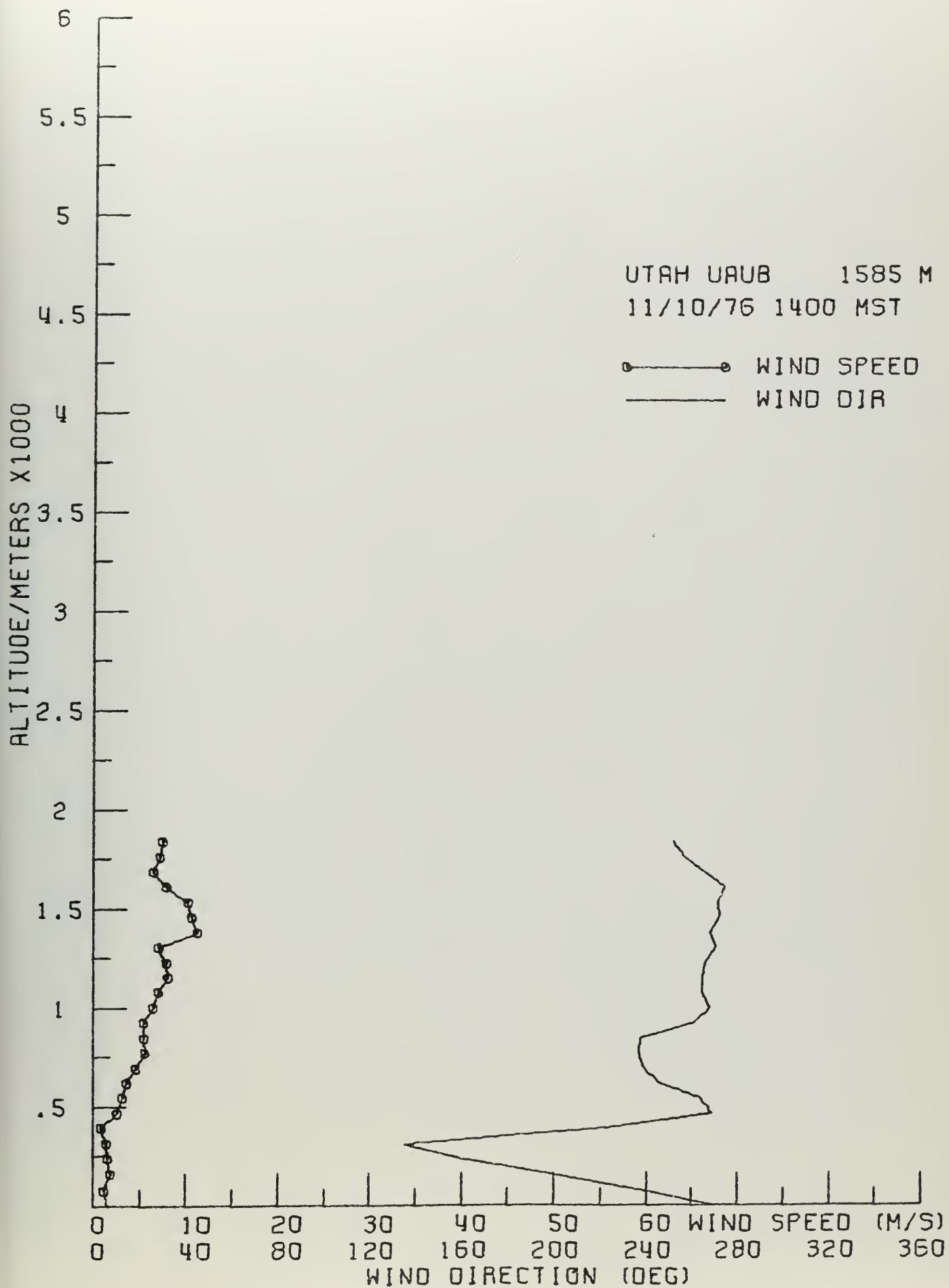






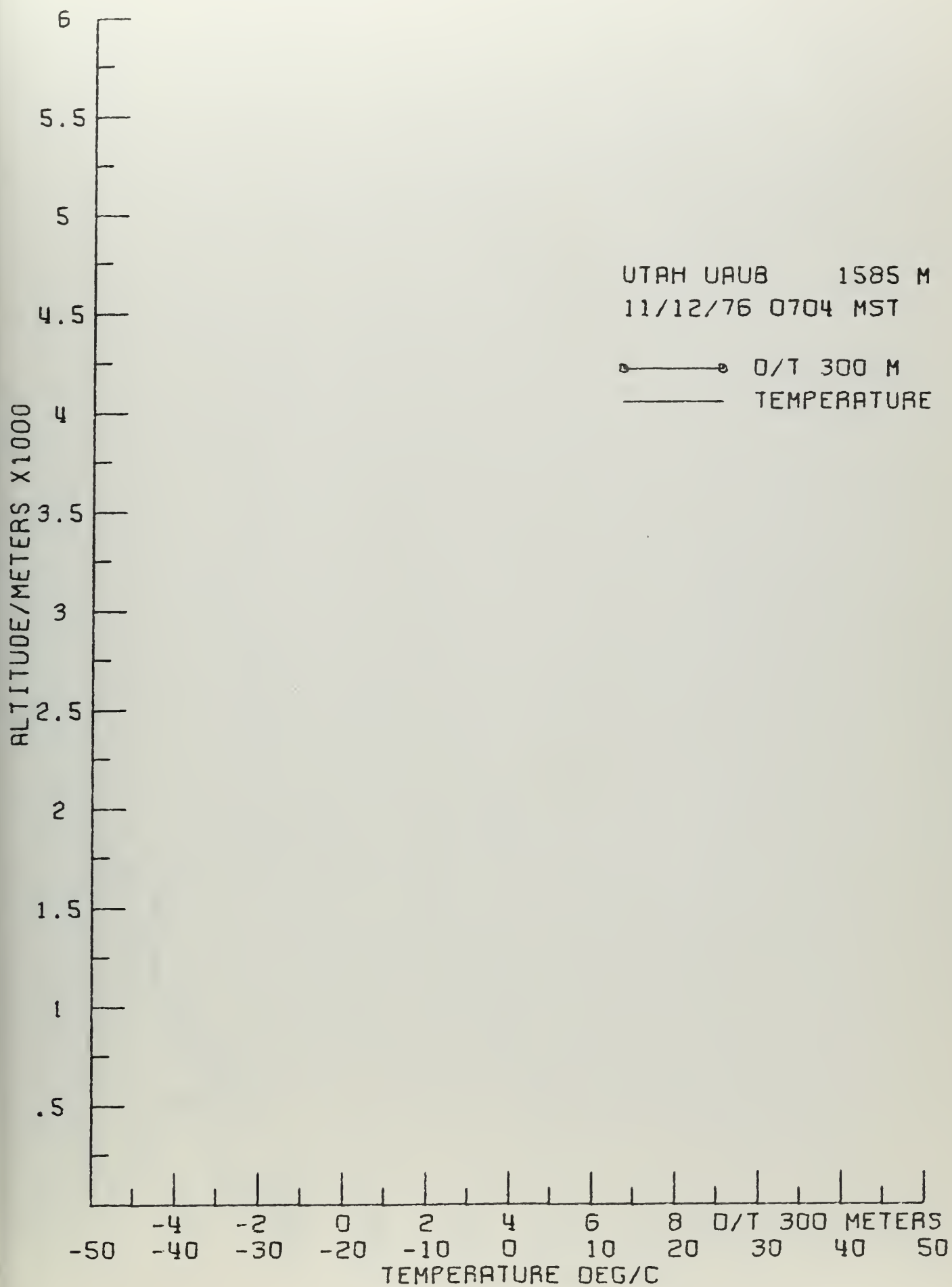




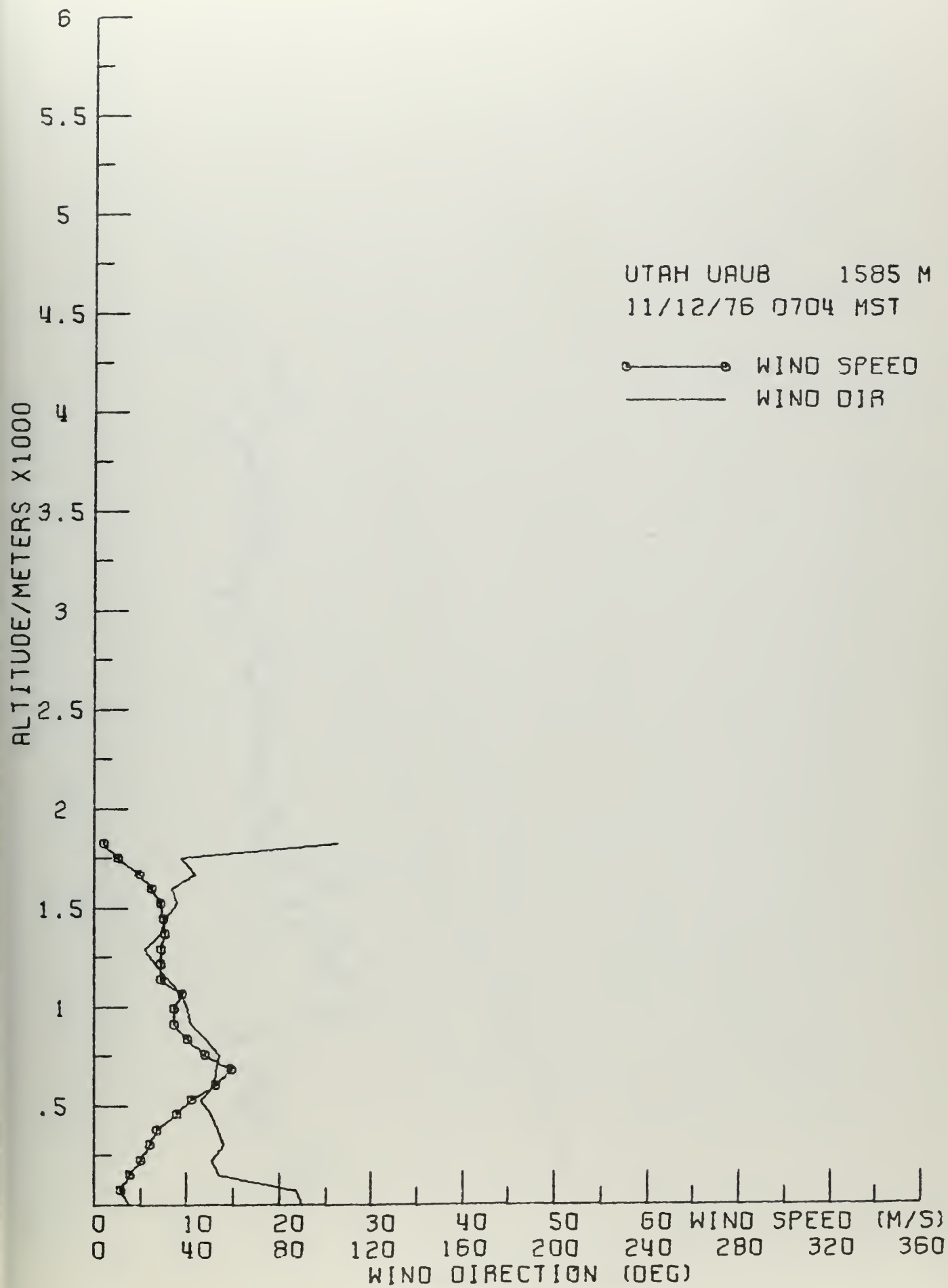




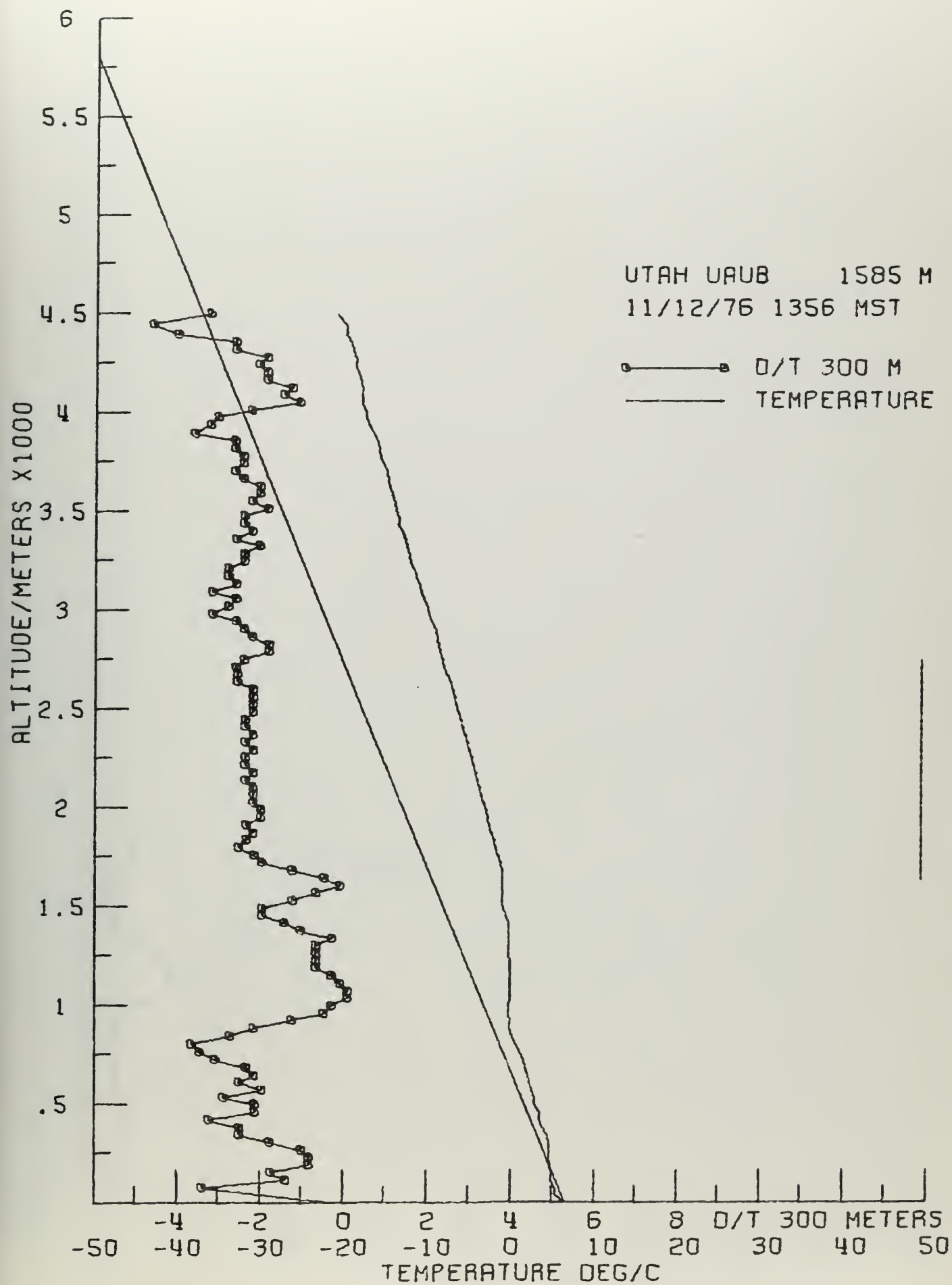






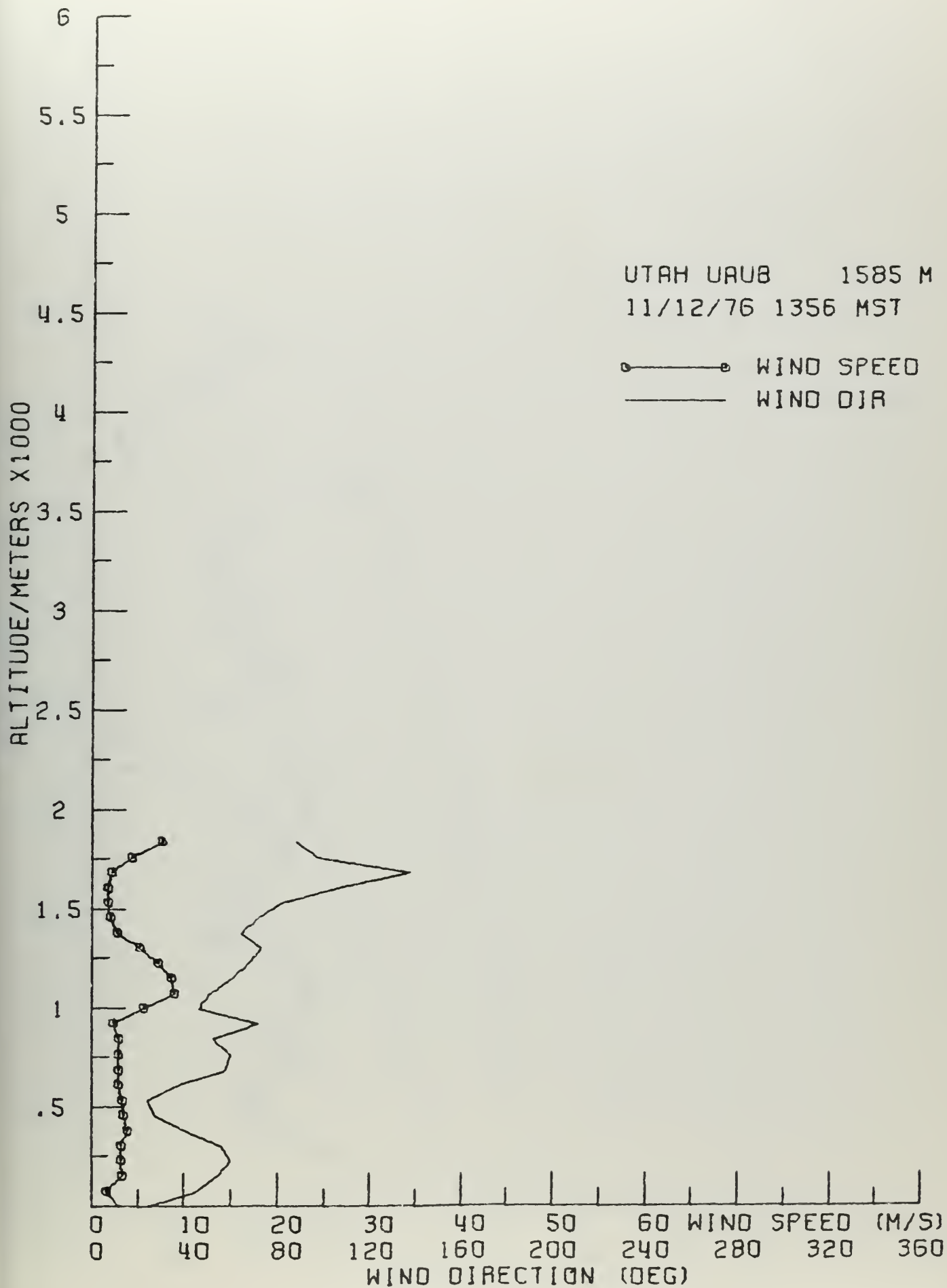




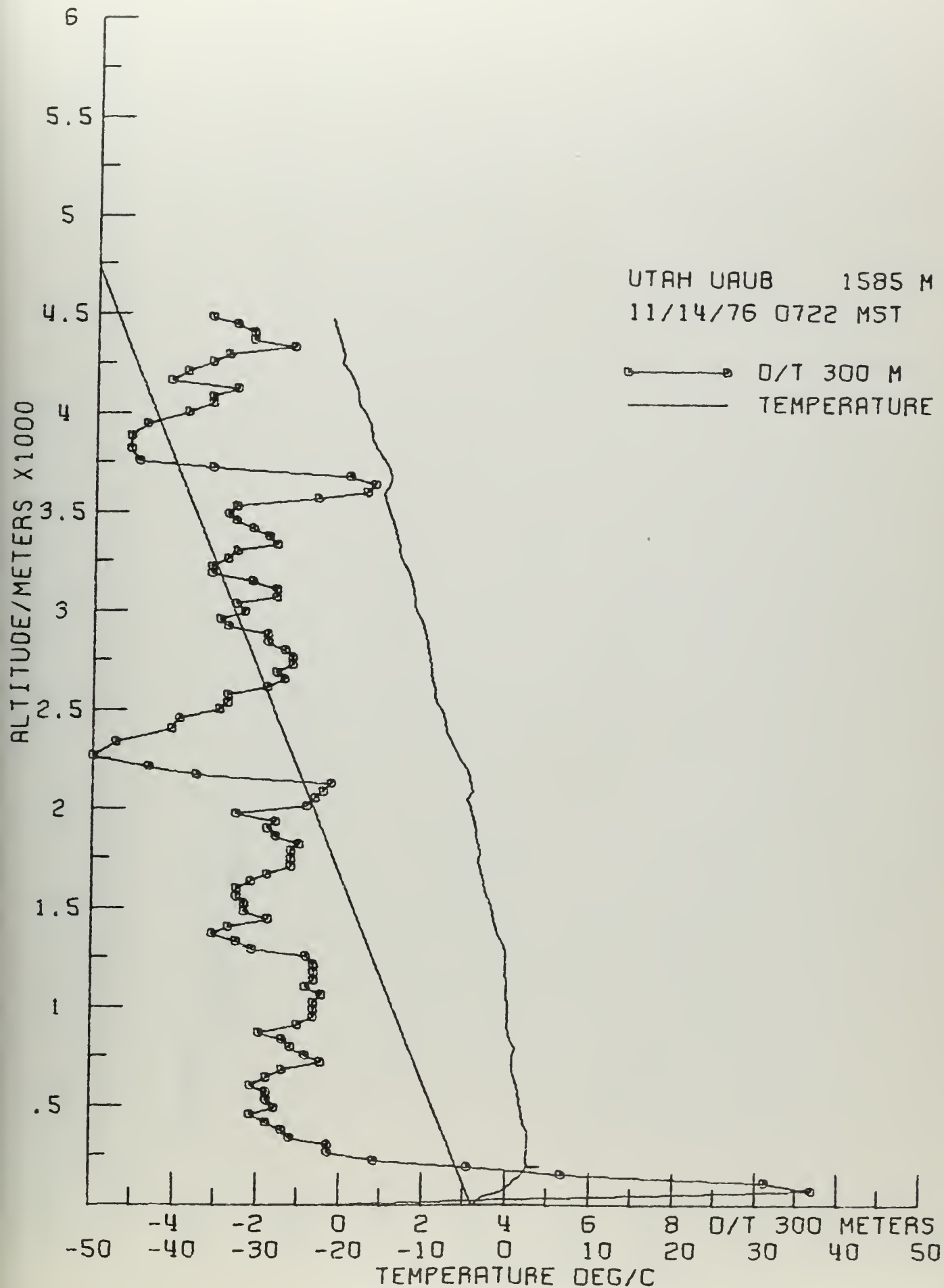




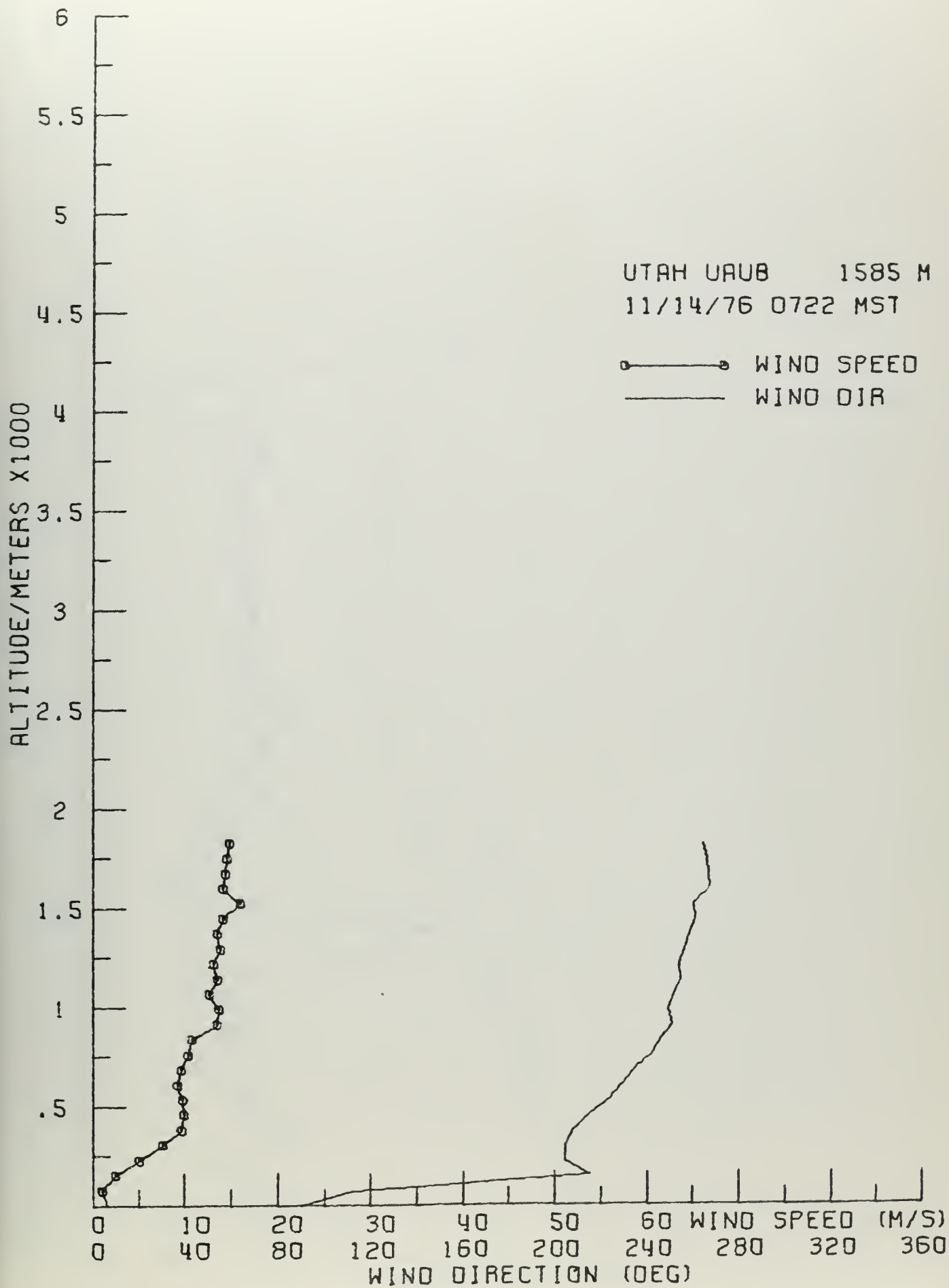






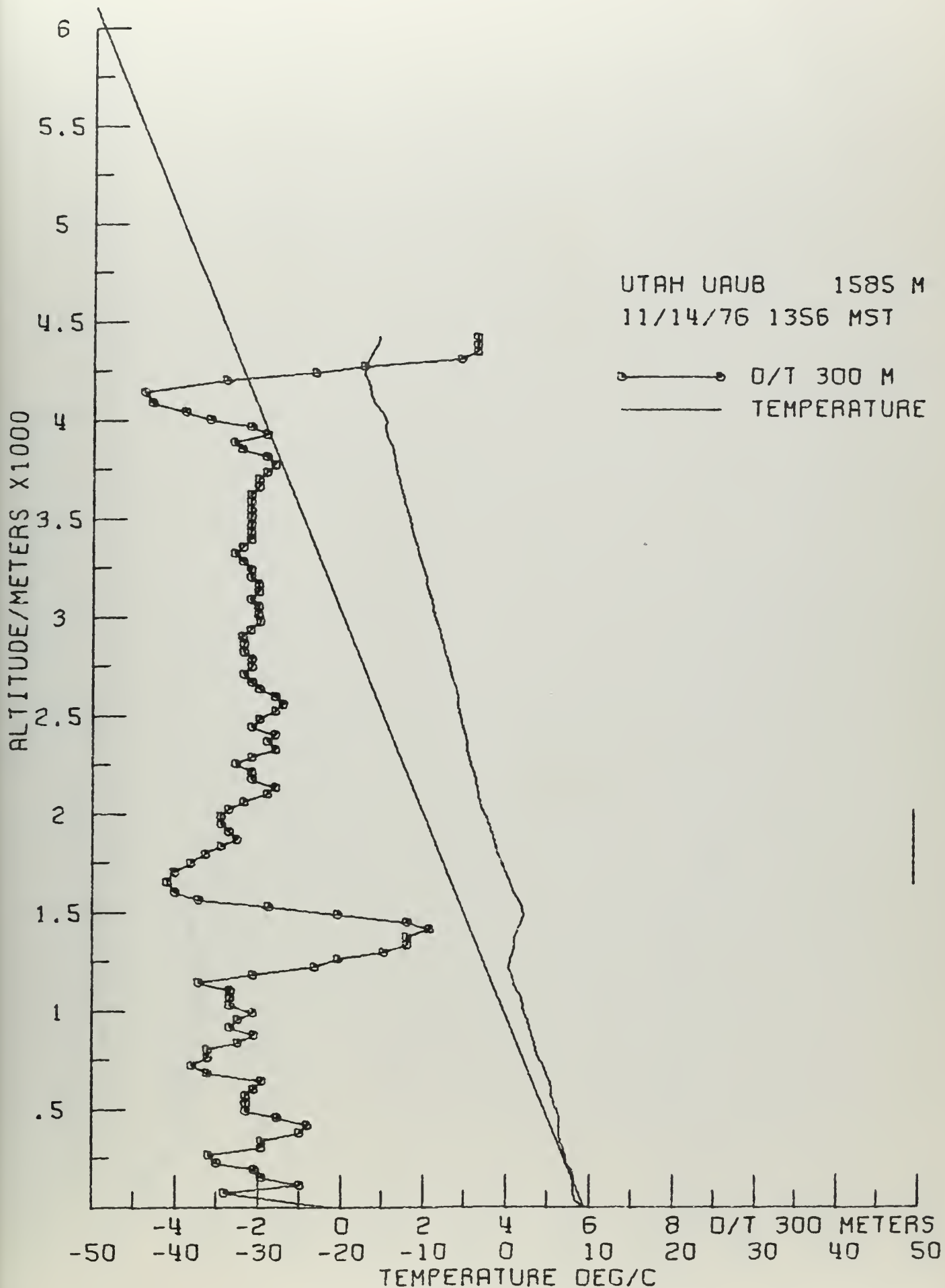




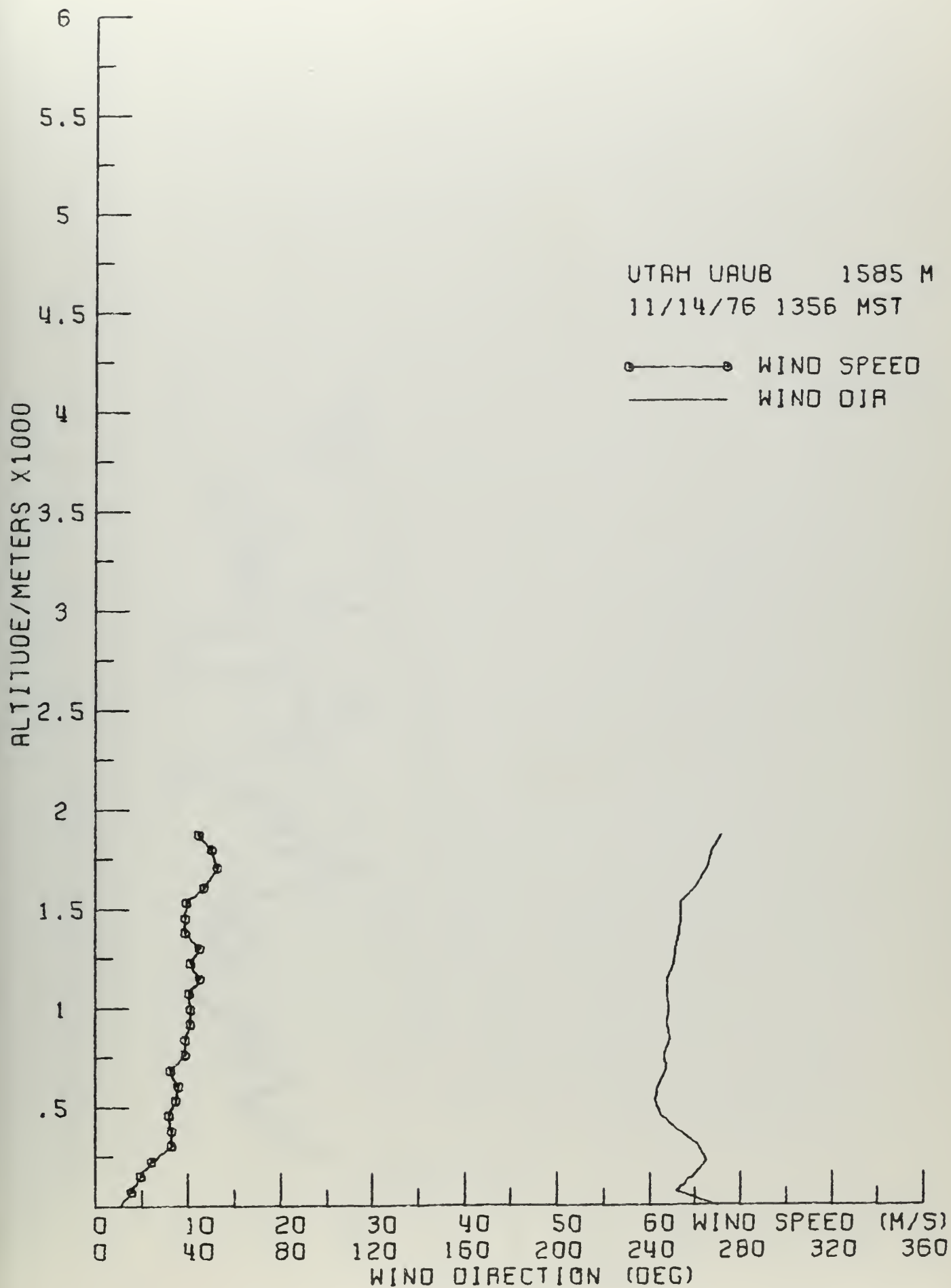




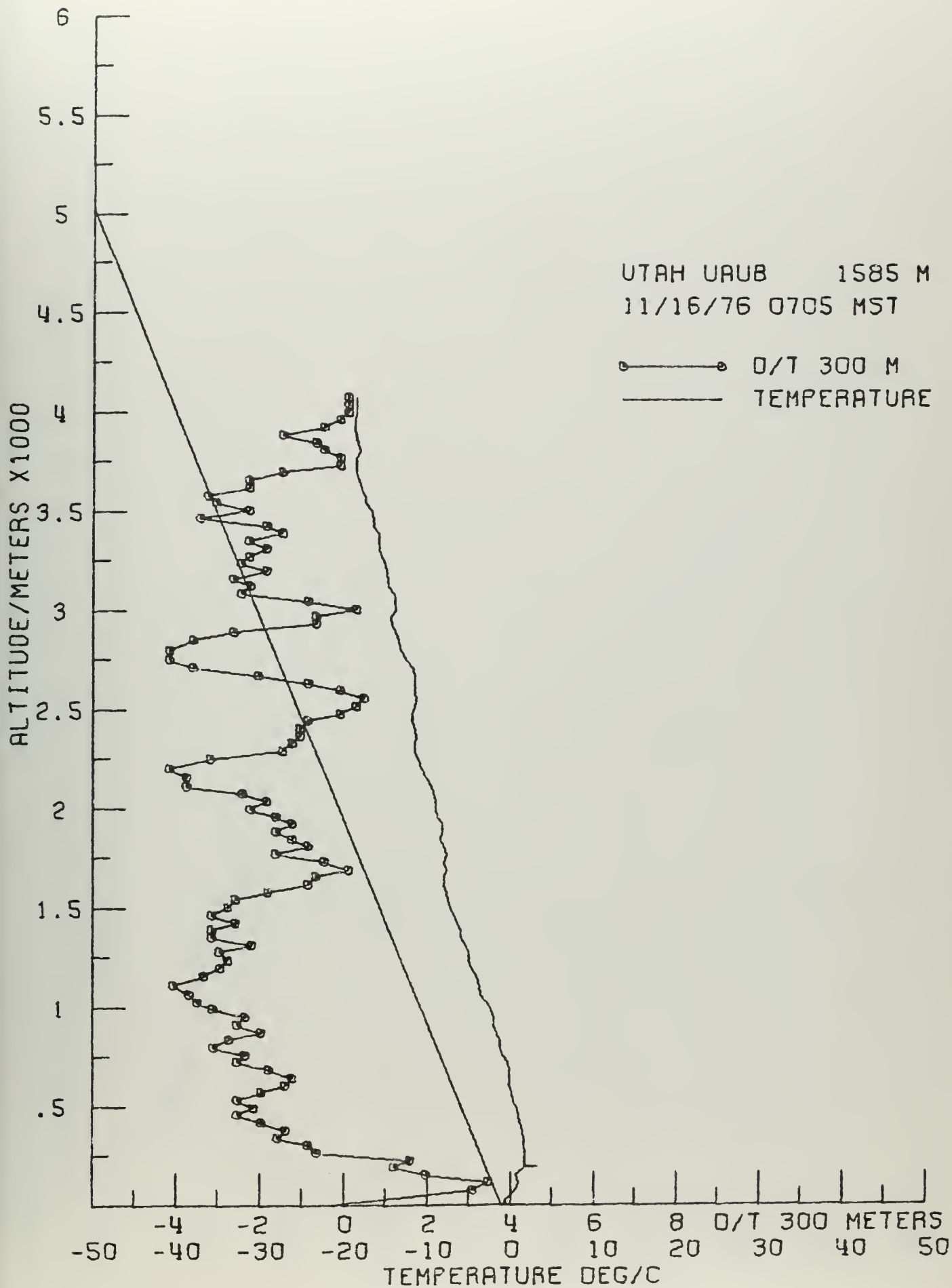






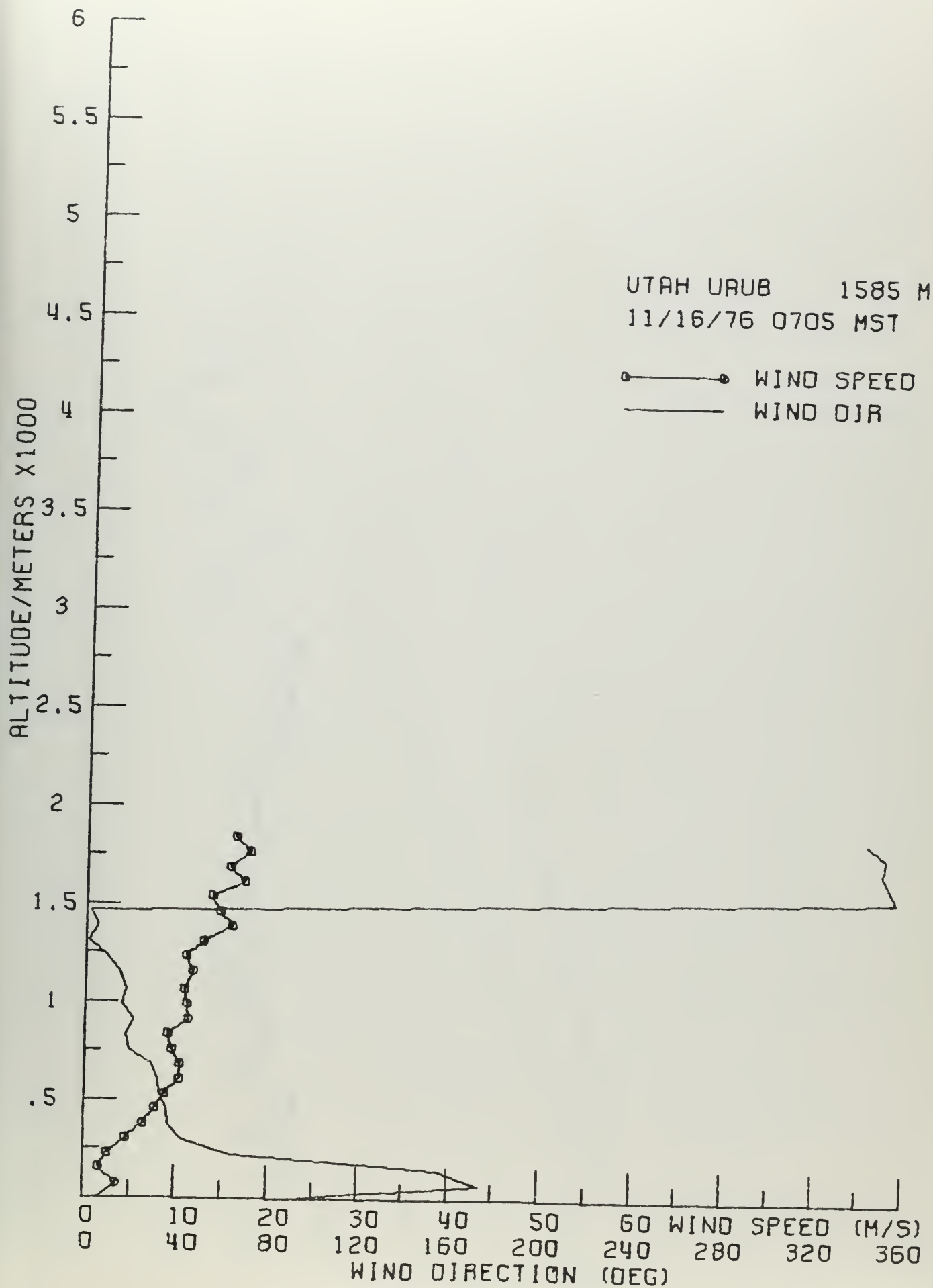




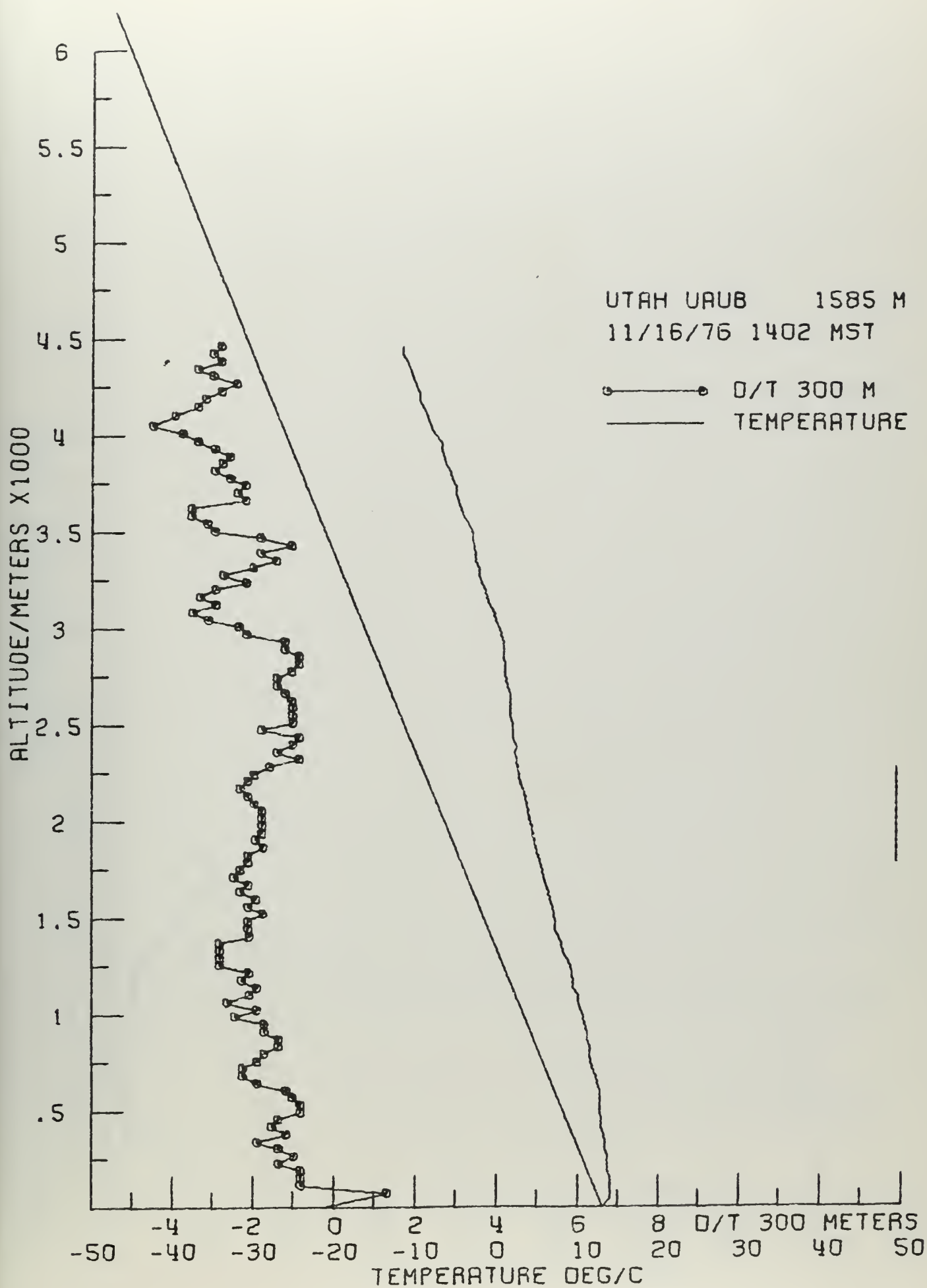




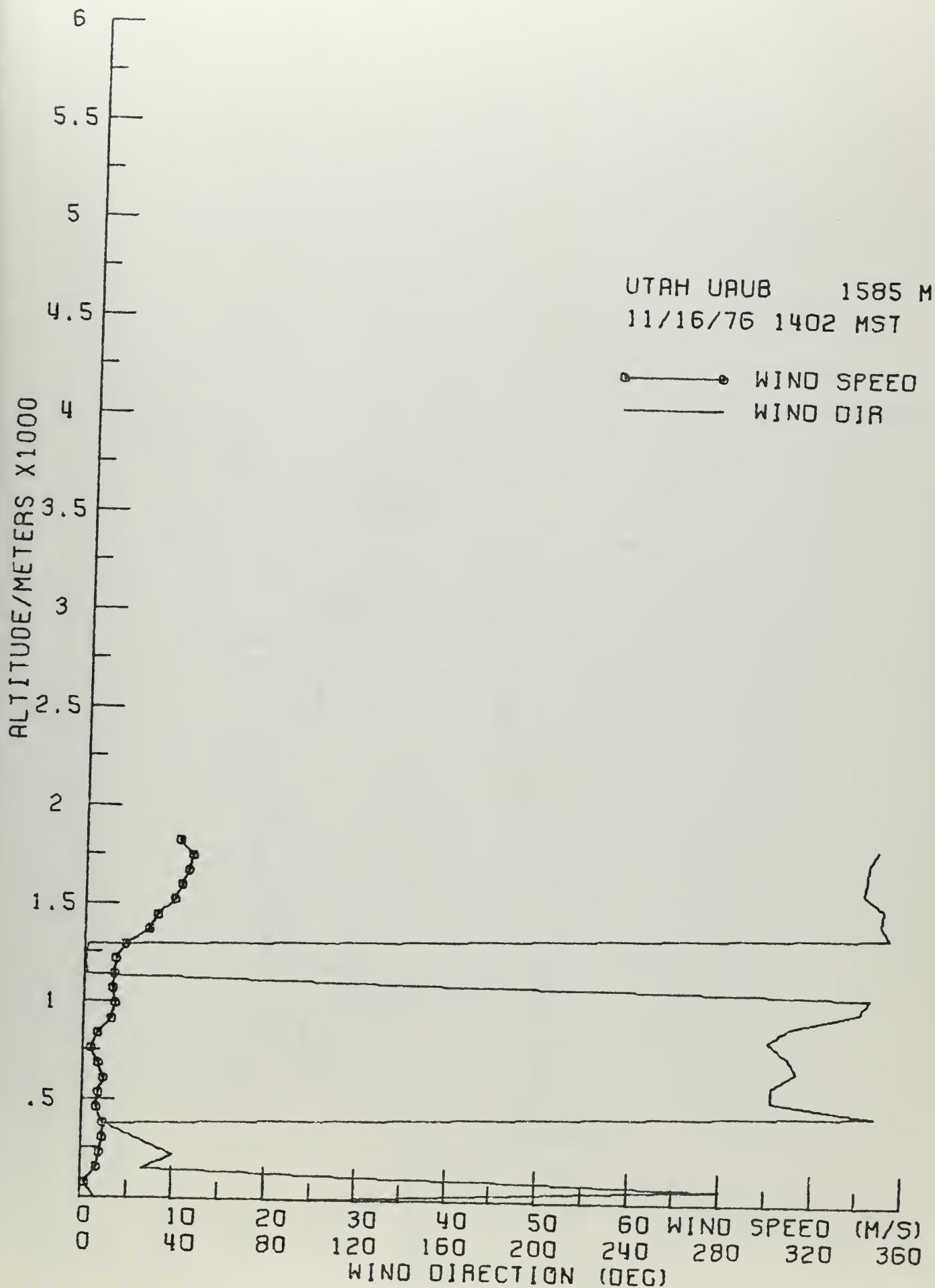




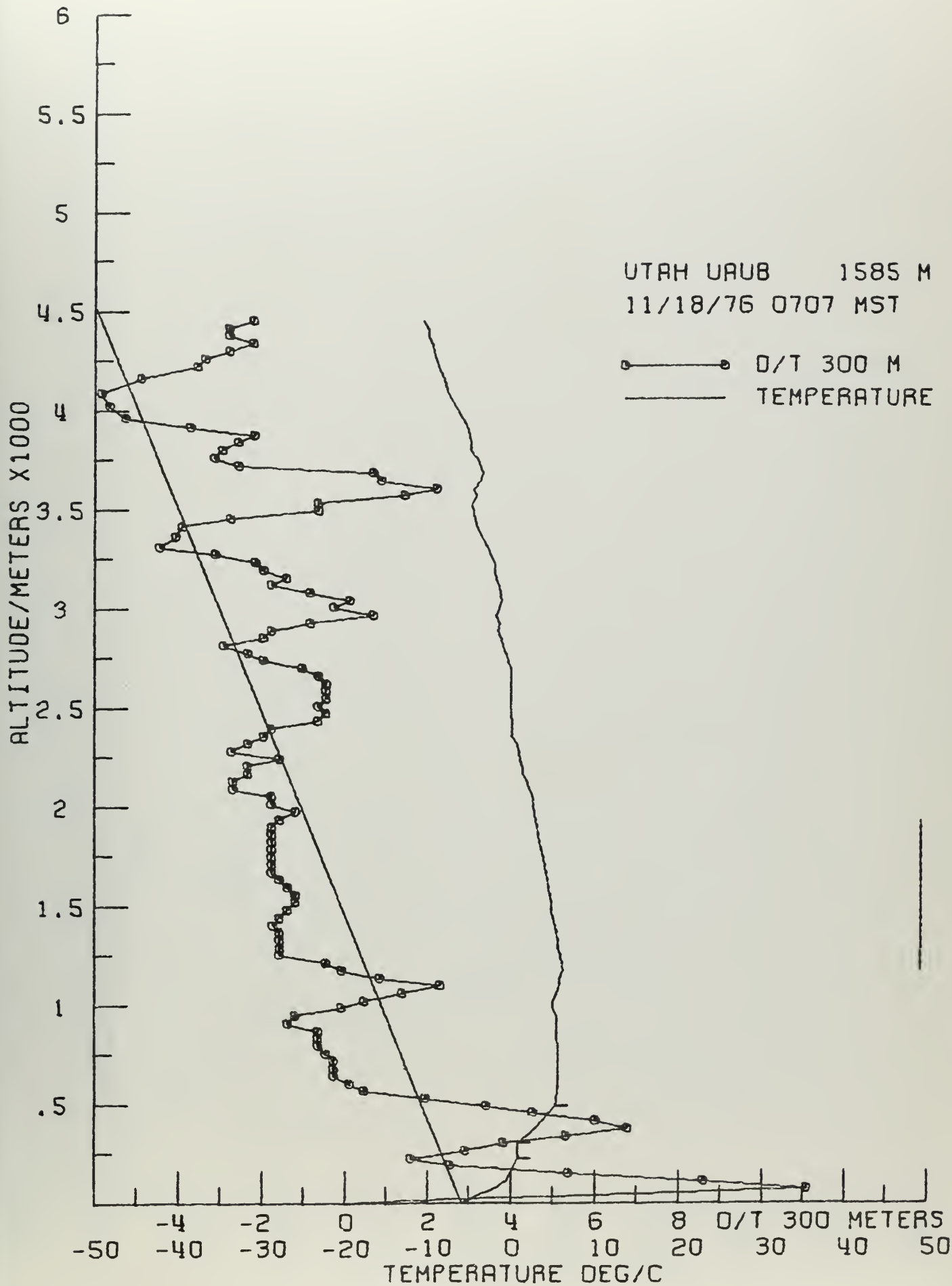






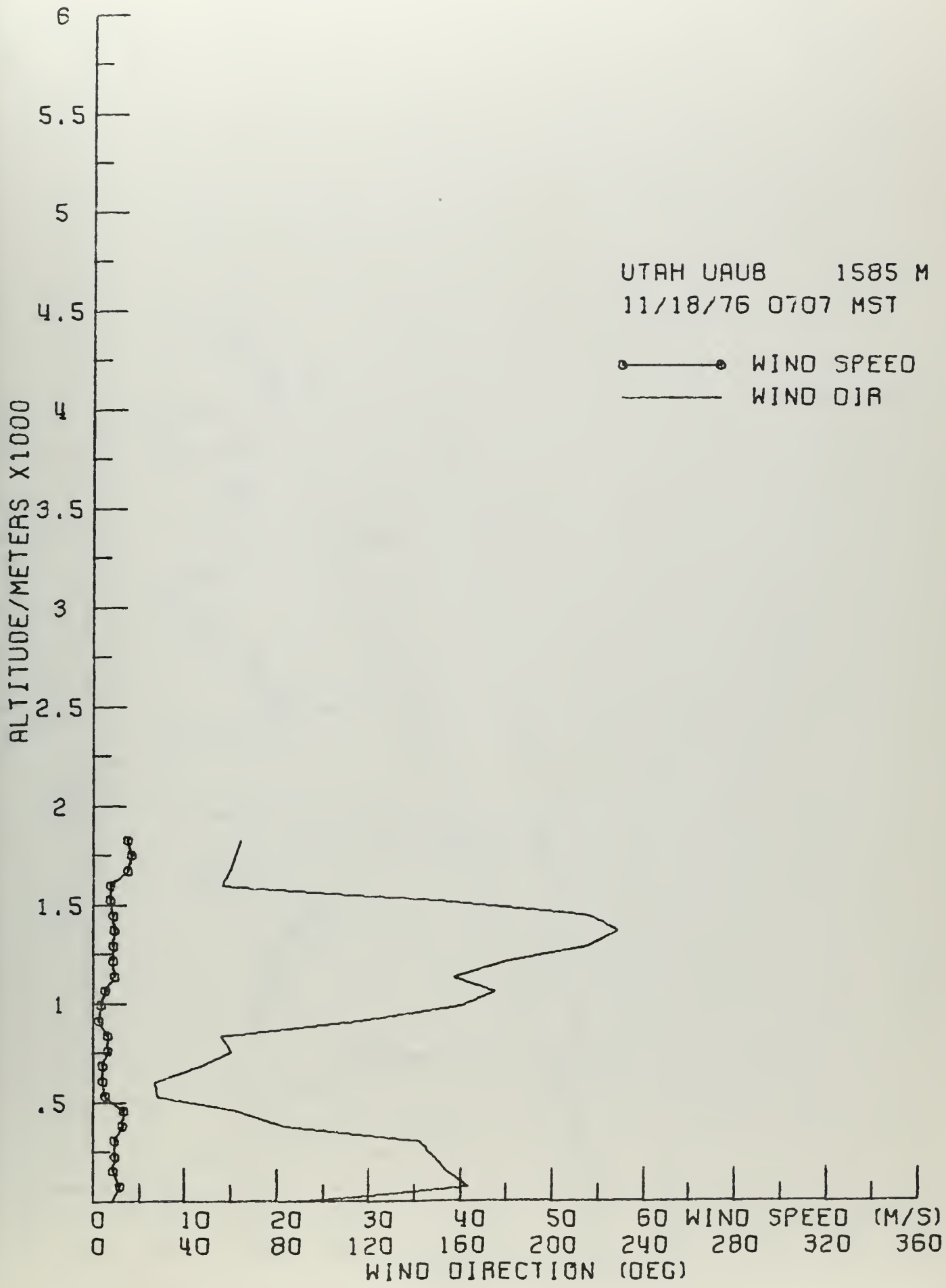




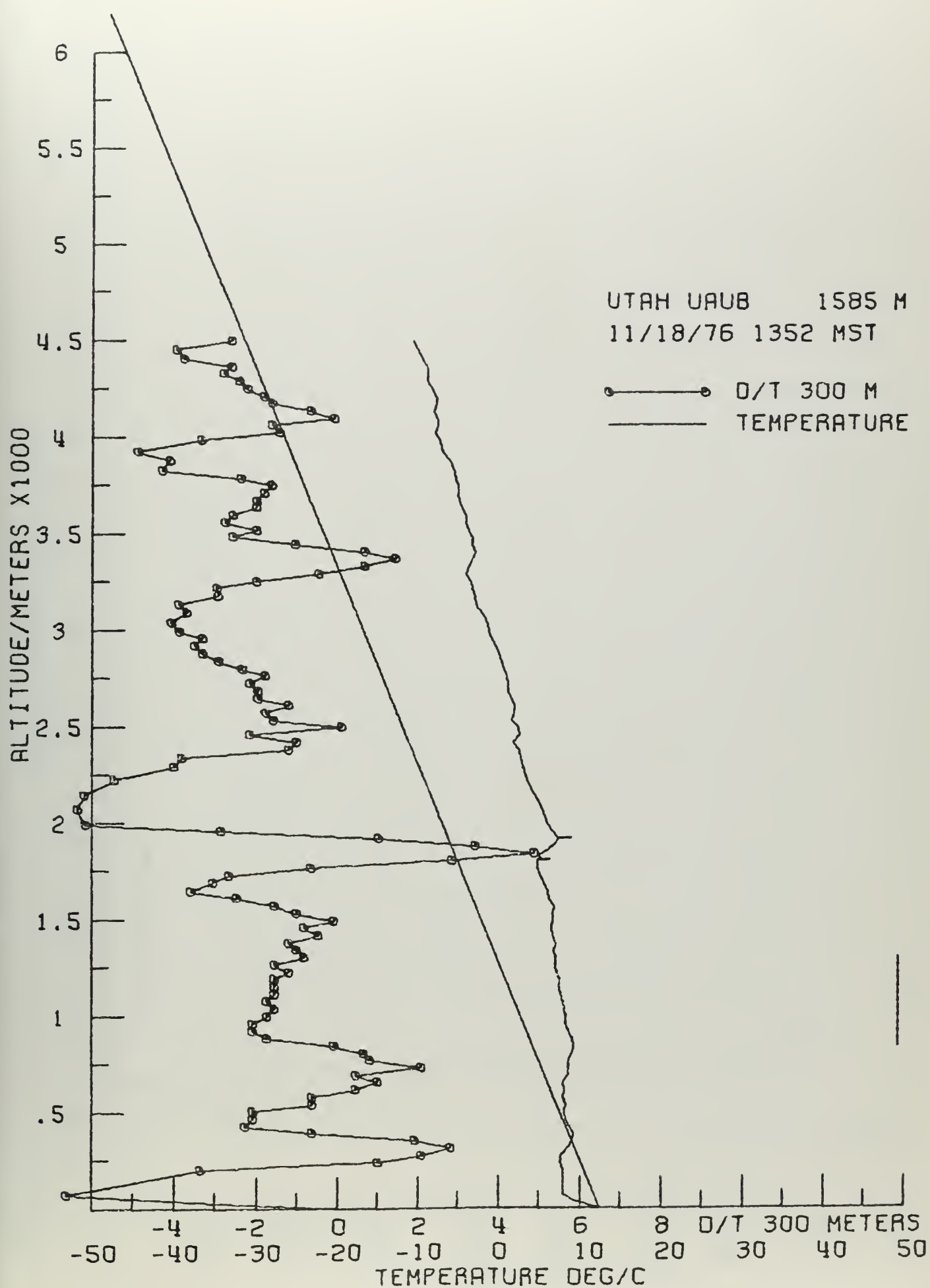




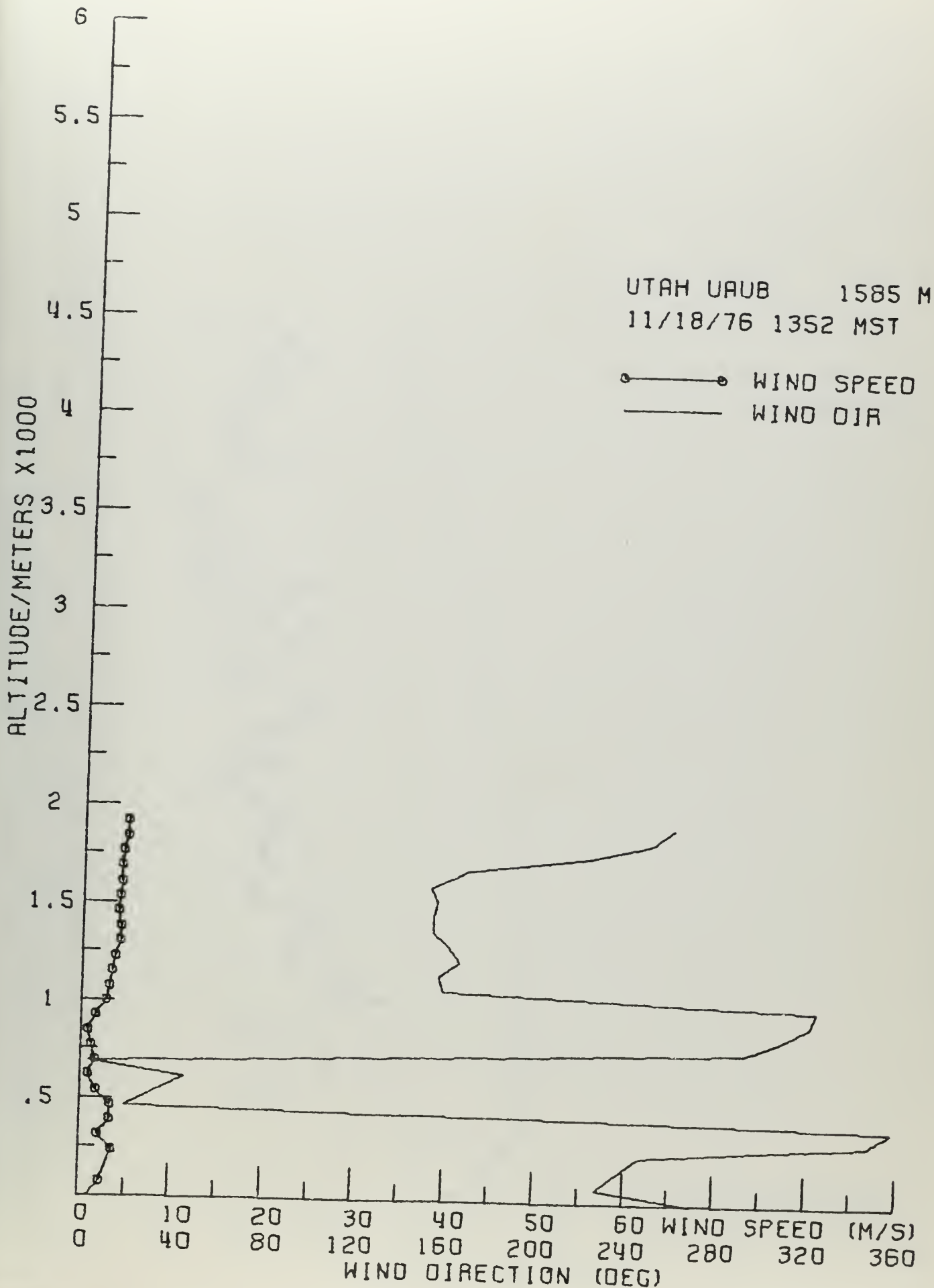






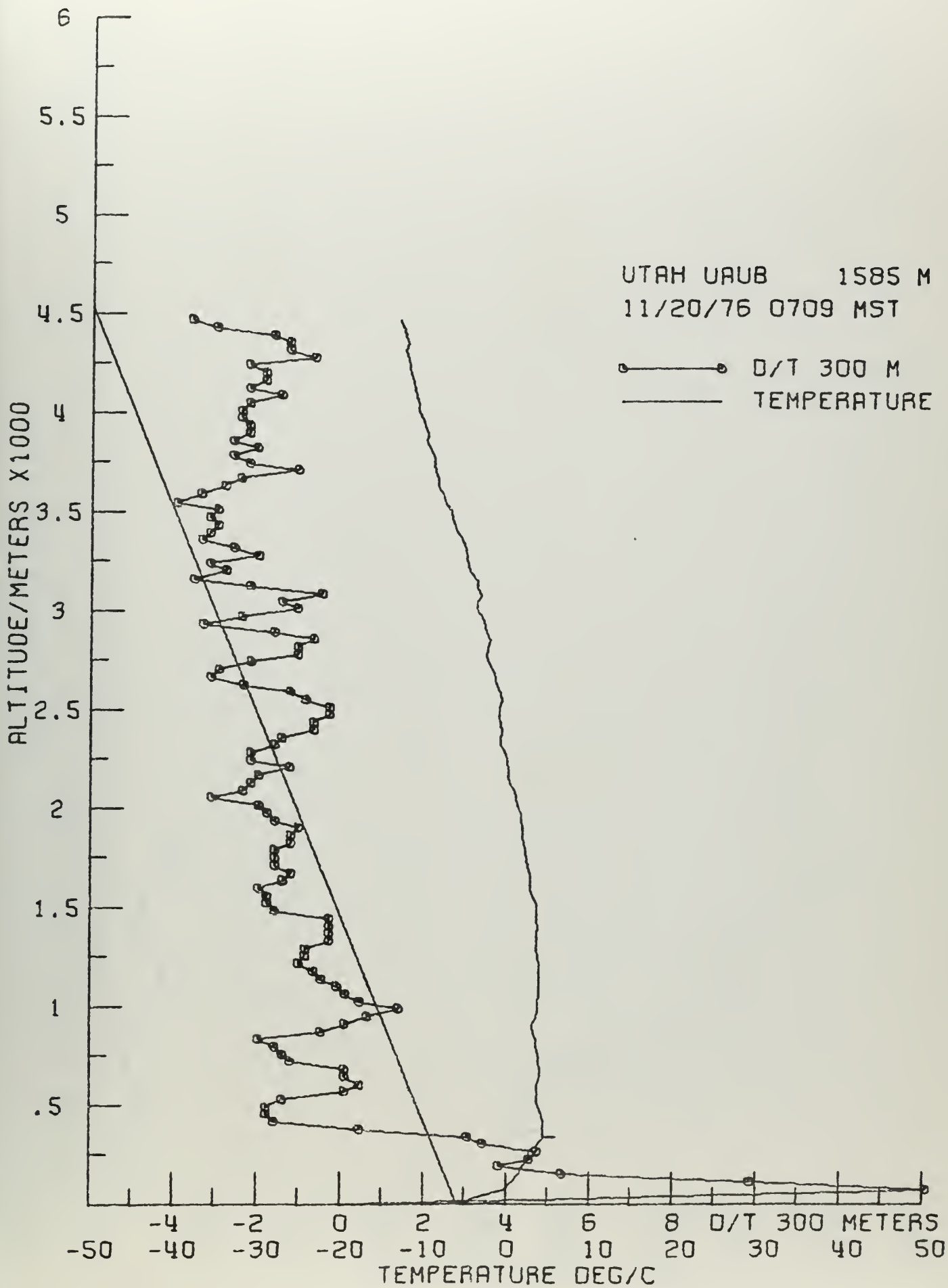




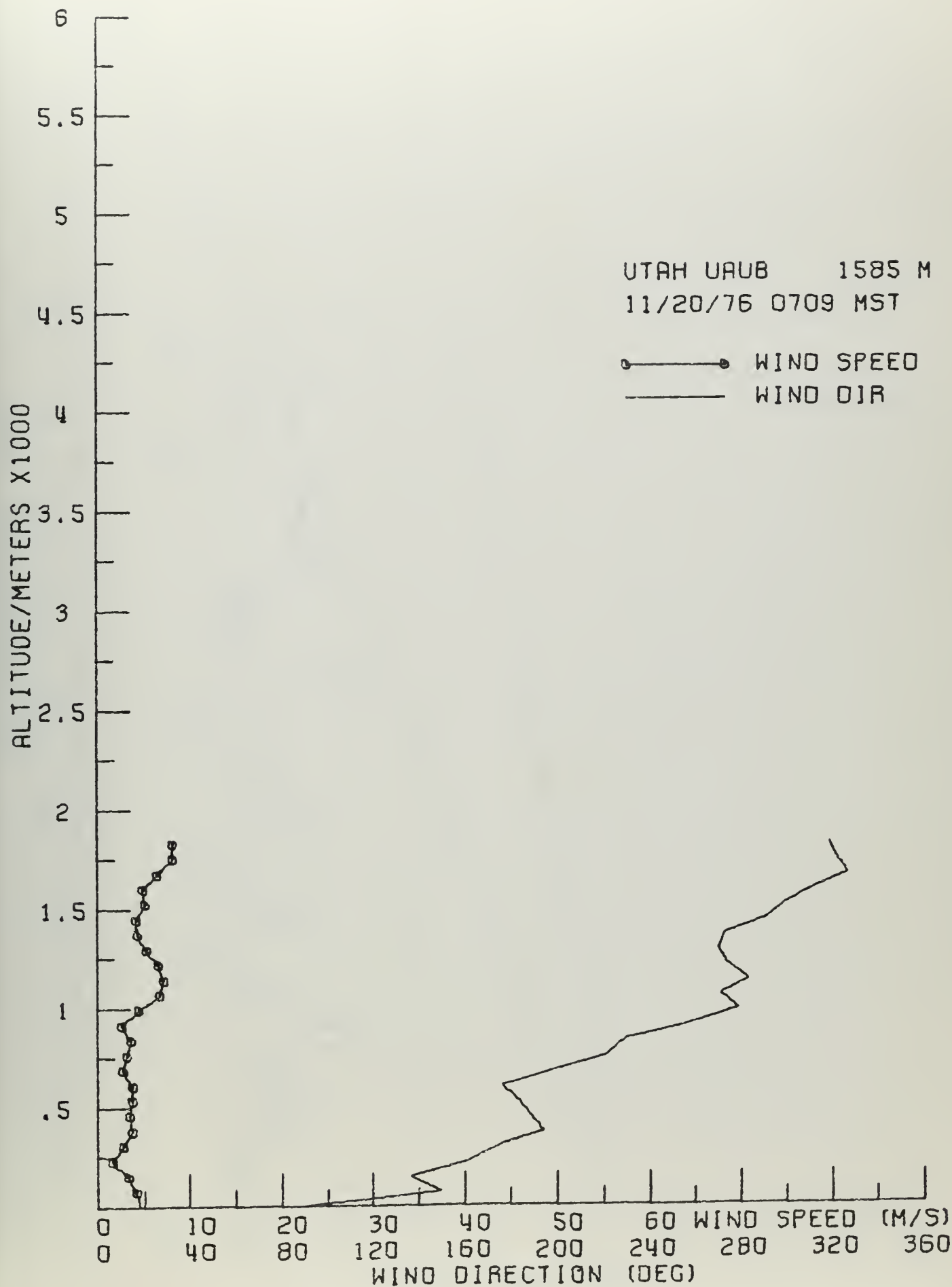














ALTITUDE/METERS X1000

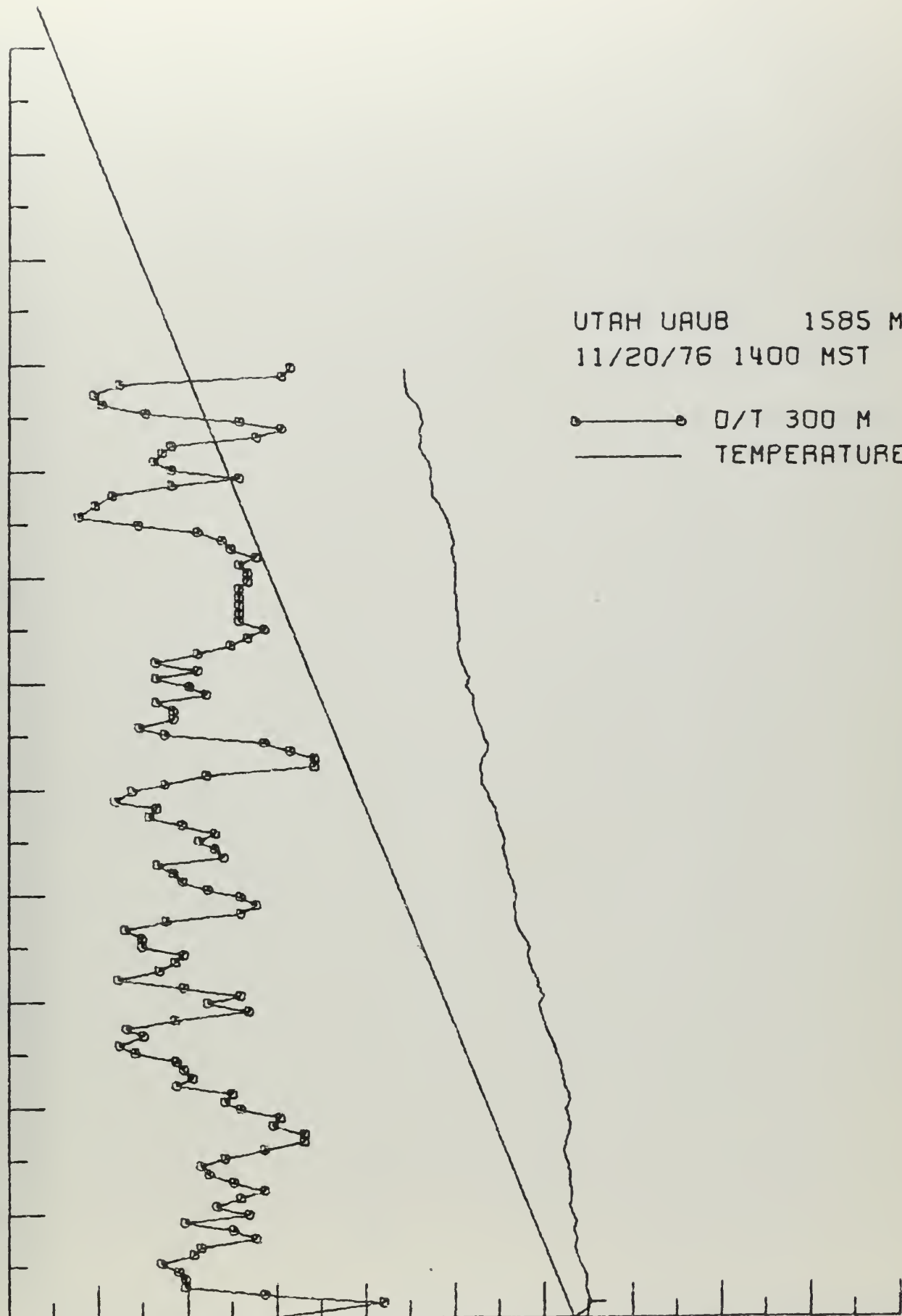
6  
5.5  
5  
4.5  
4  
3.5  
3  
2.5  
2  
1.5  
1  
.5

UTAH UAUB 1585 M  
11/20/76 1400 MST

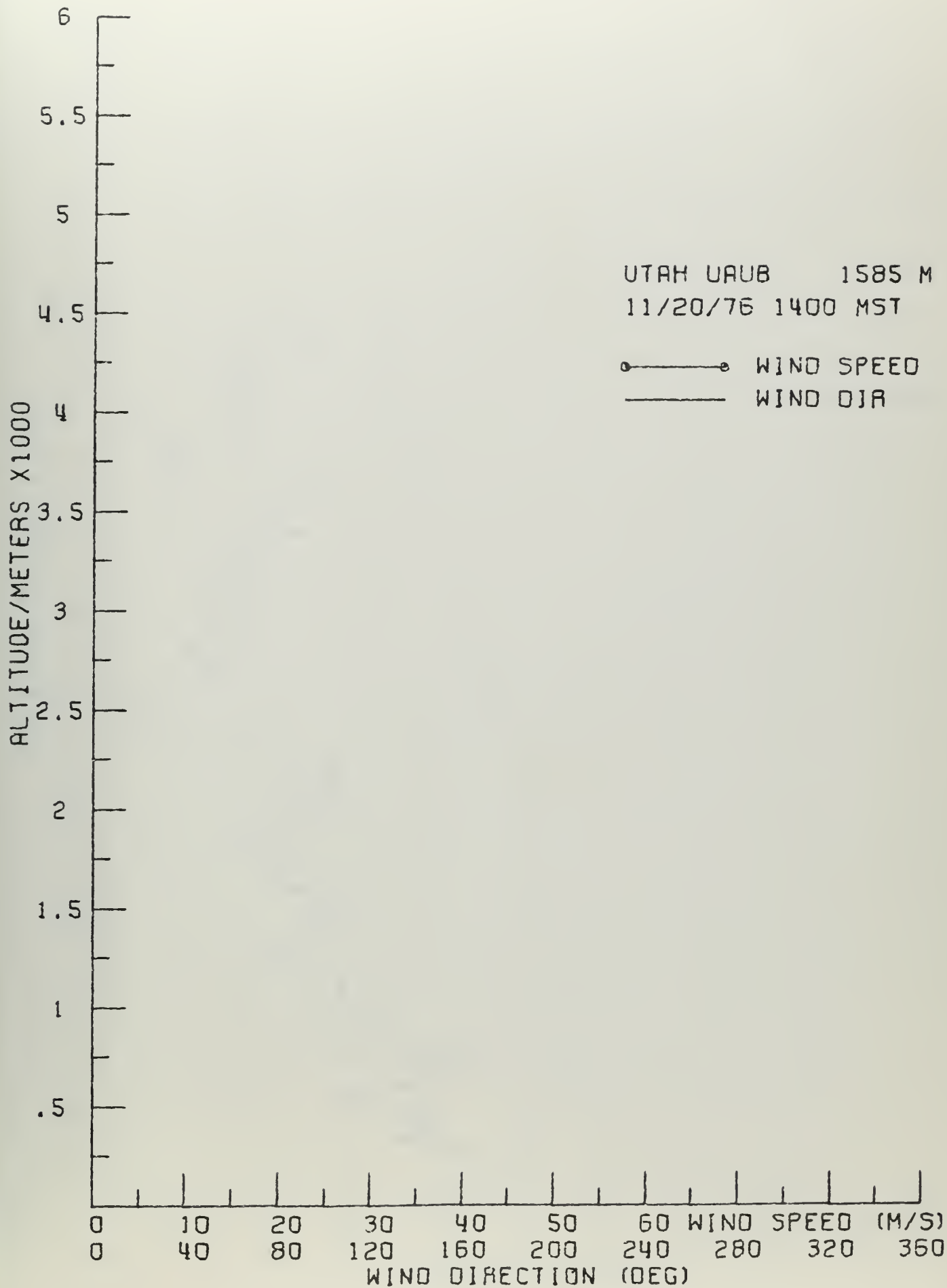
○—○ D/T 300 M  
— TEMPERATURE

-50 -40 -30 -20 -10 0 10 20 30 40 50  
TEMPERATURE DEG/C

D/T 300 METERS

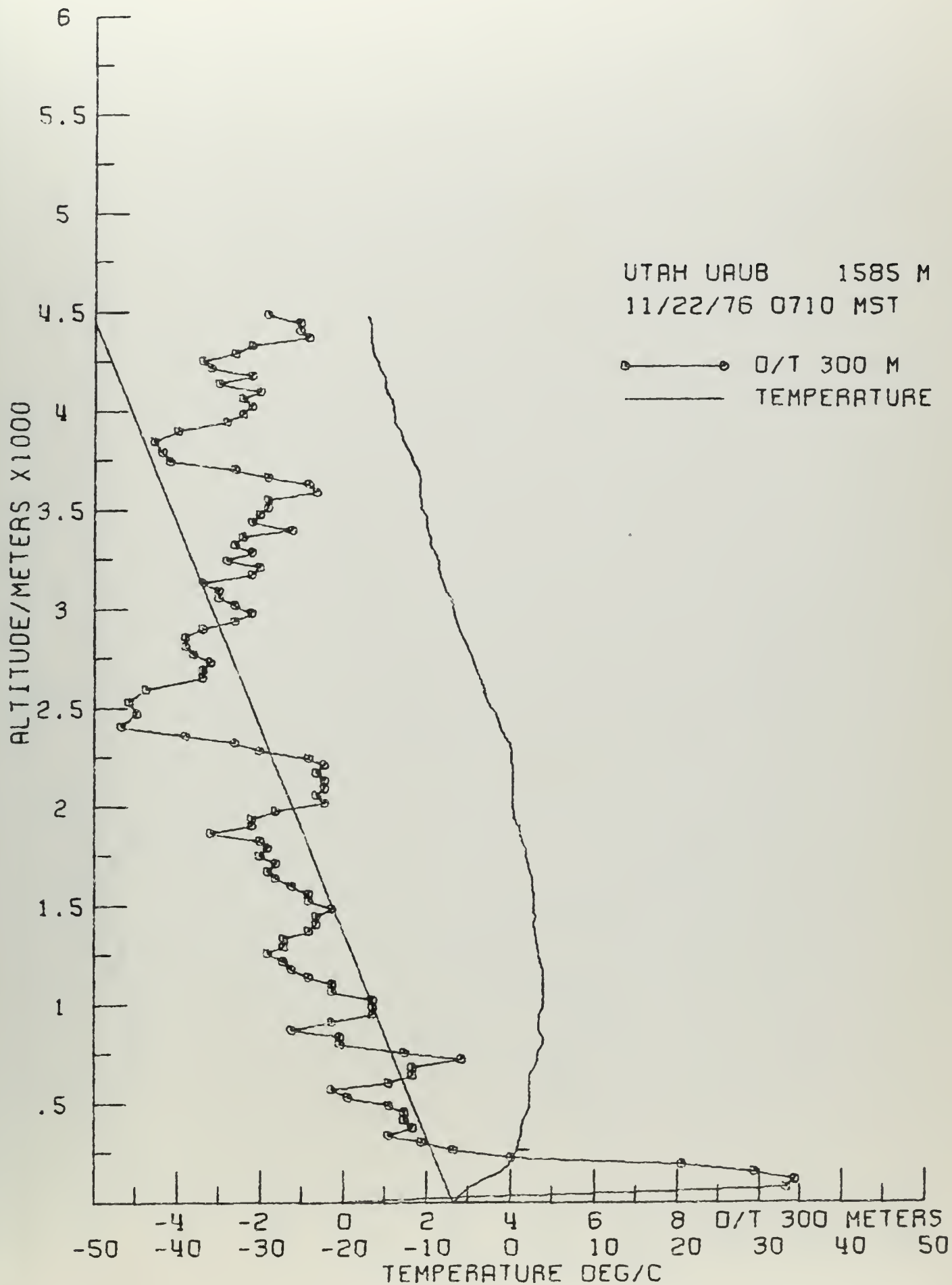




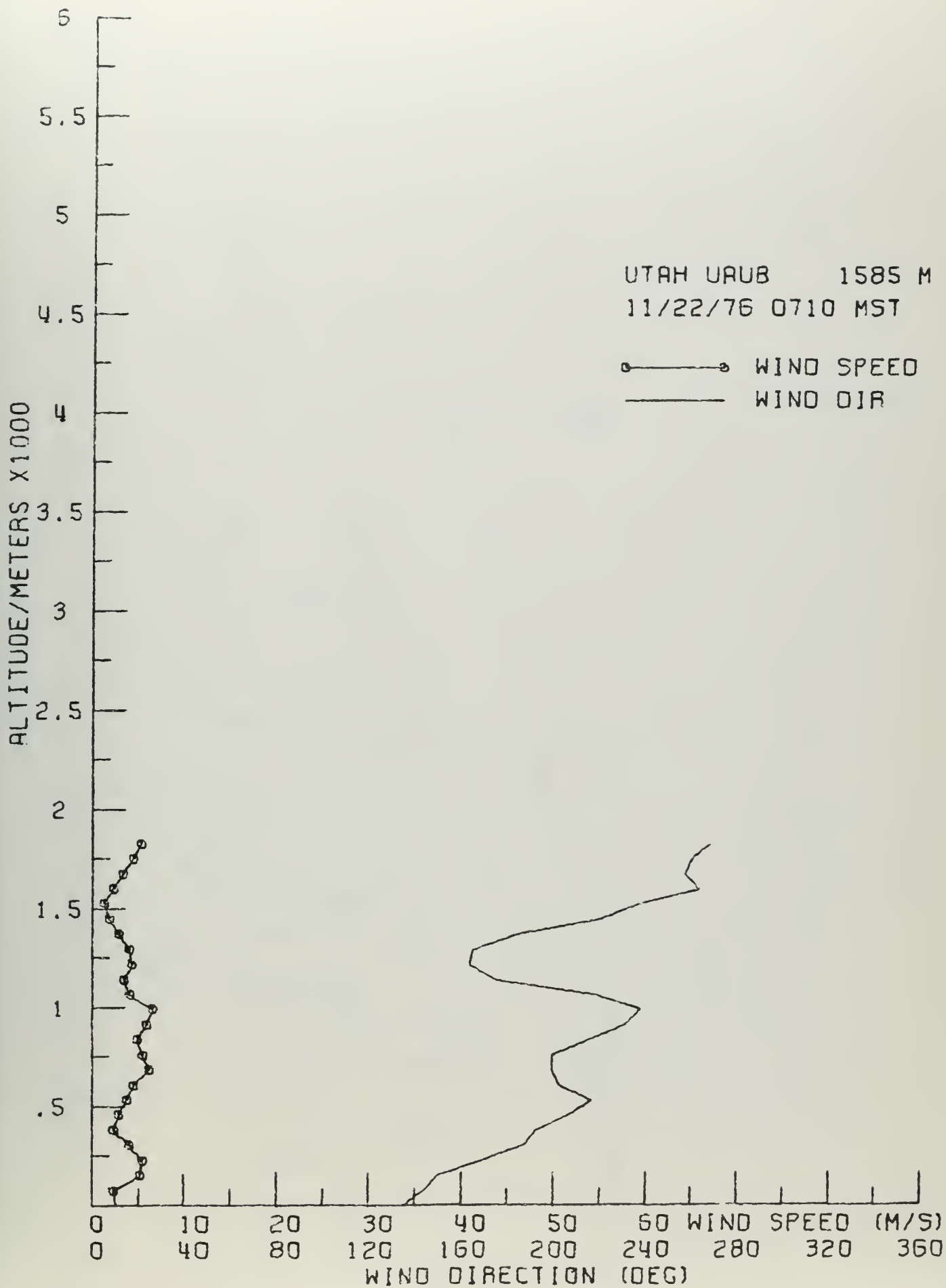




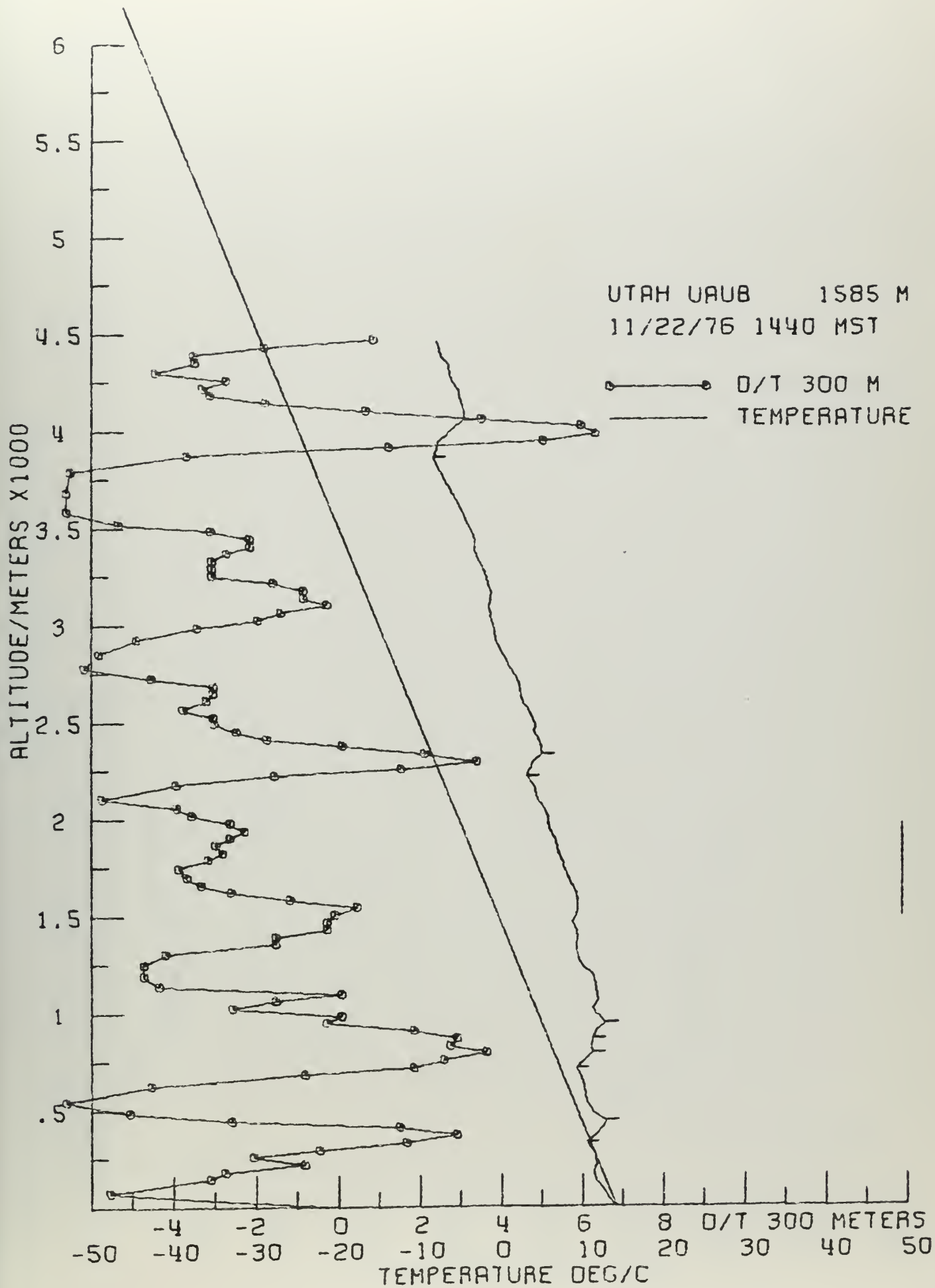






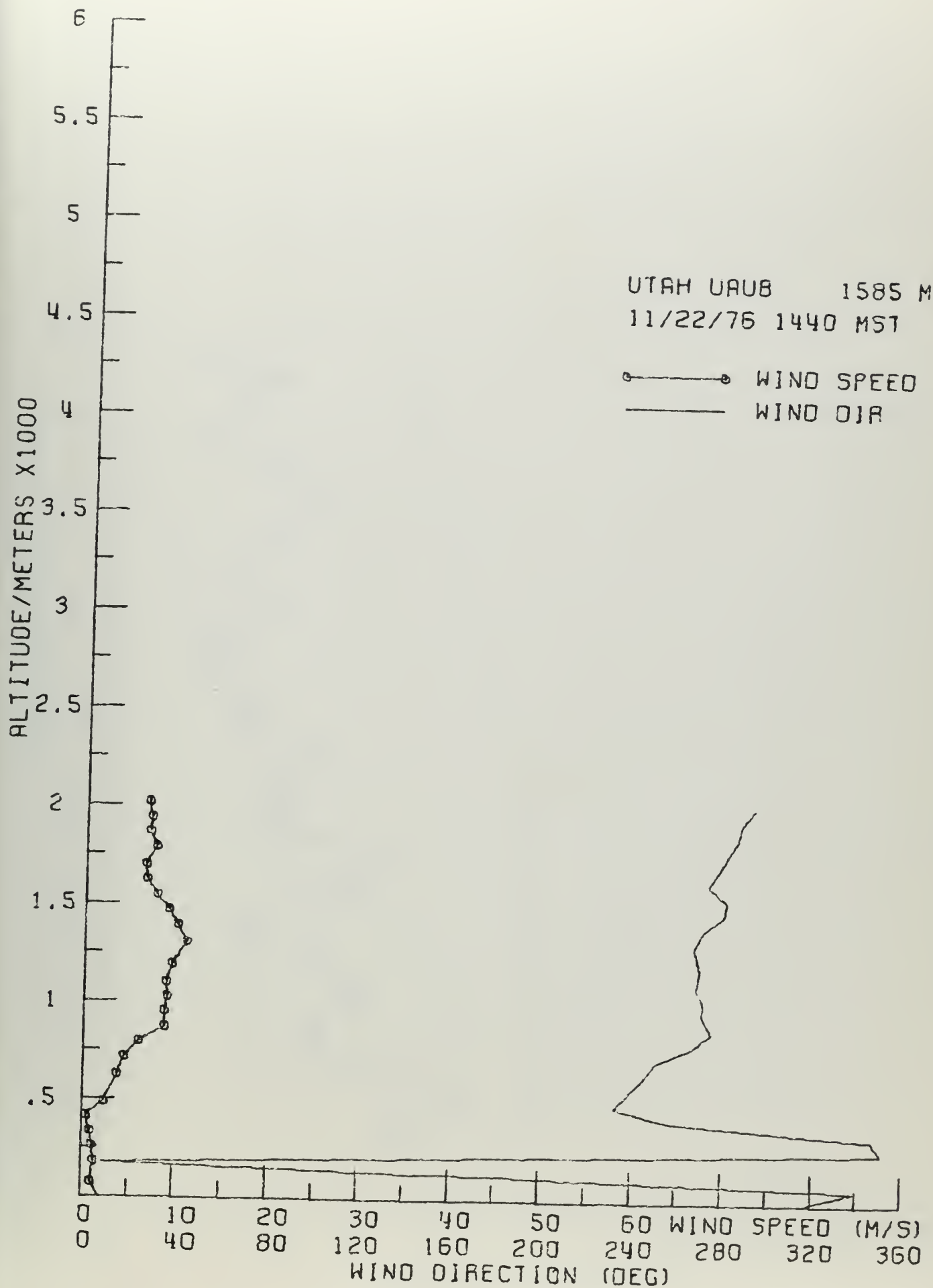




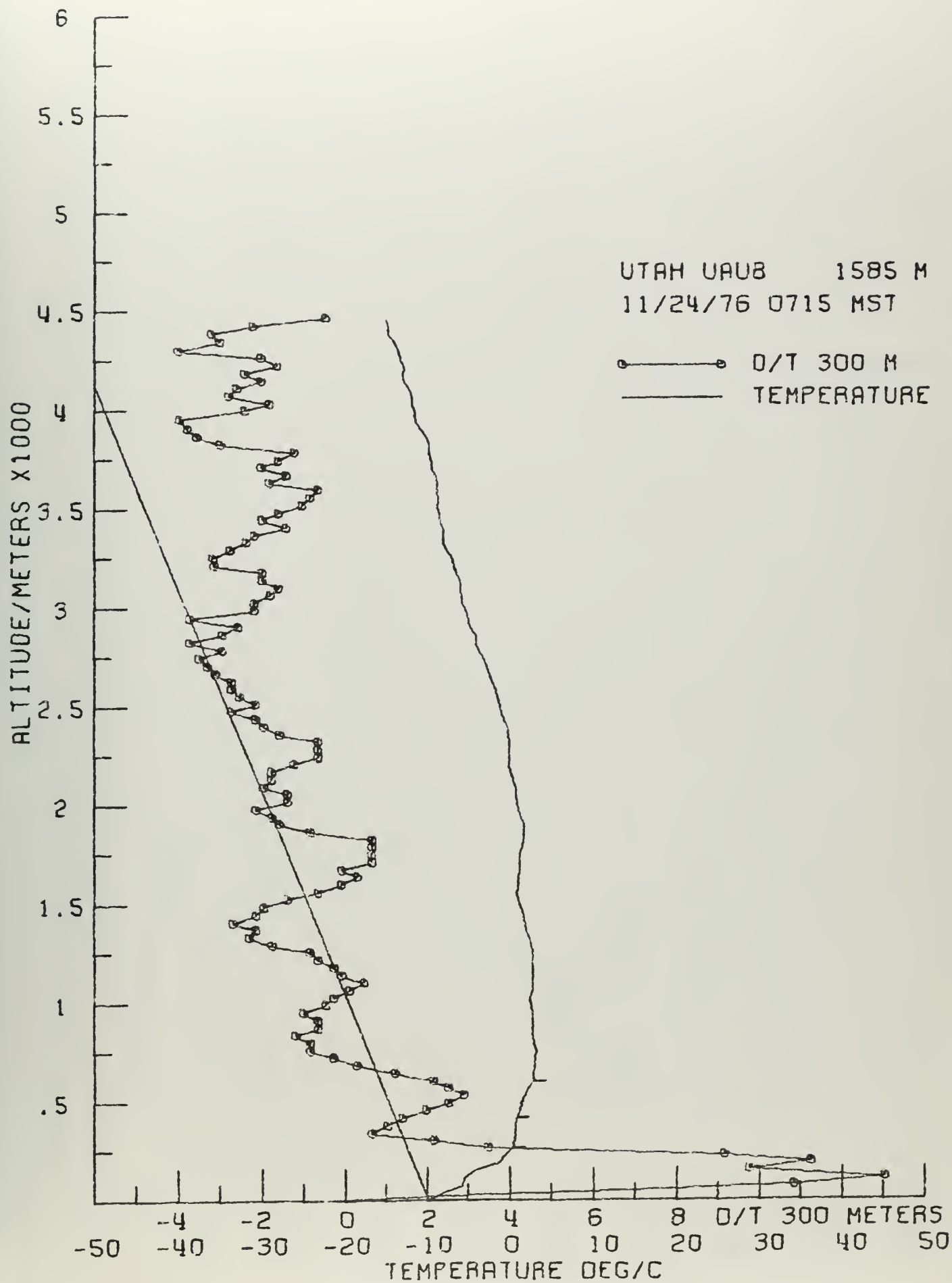




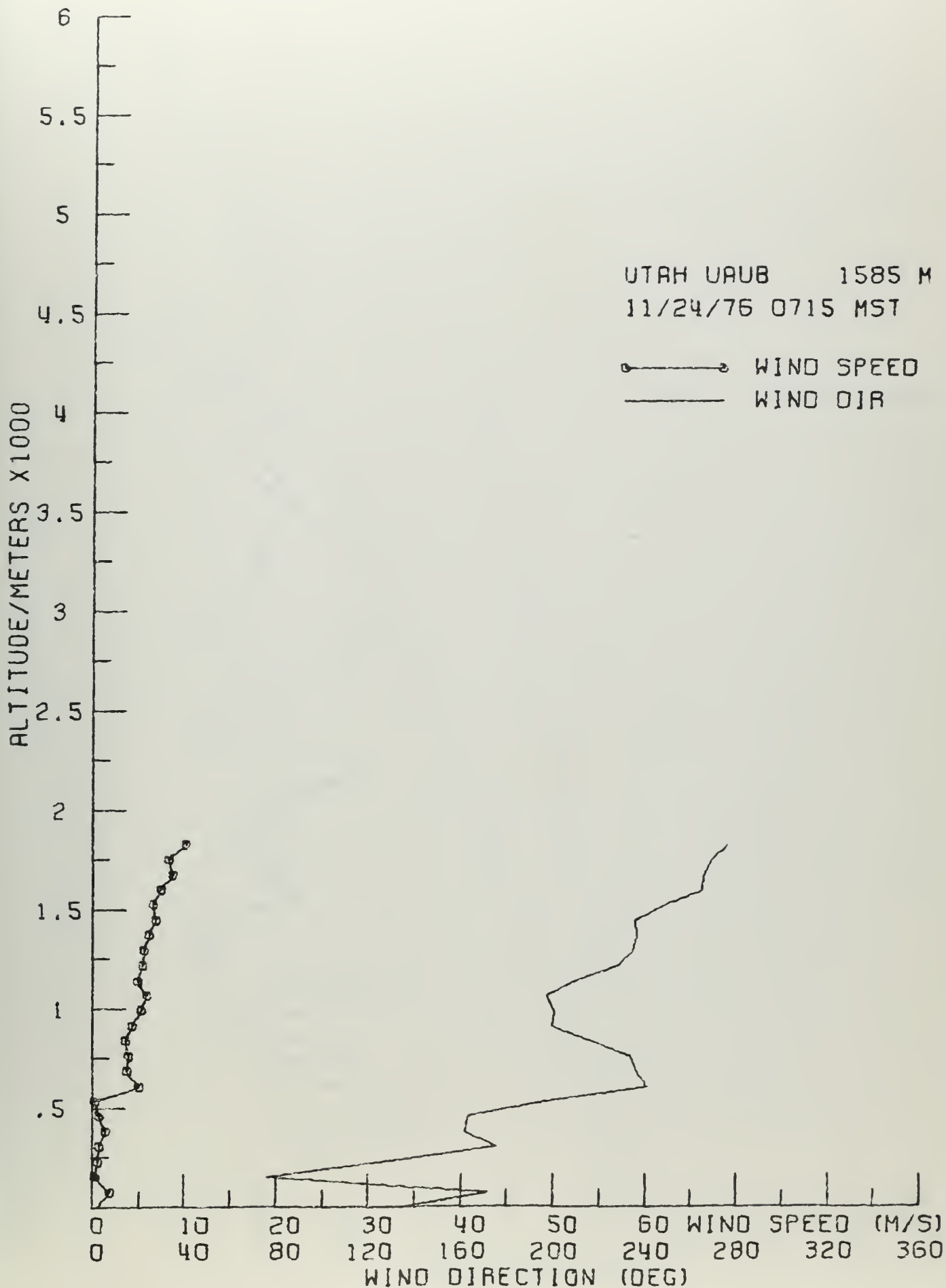




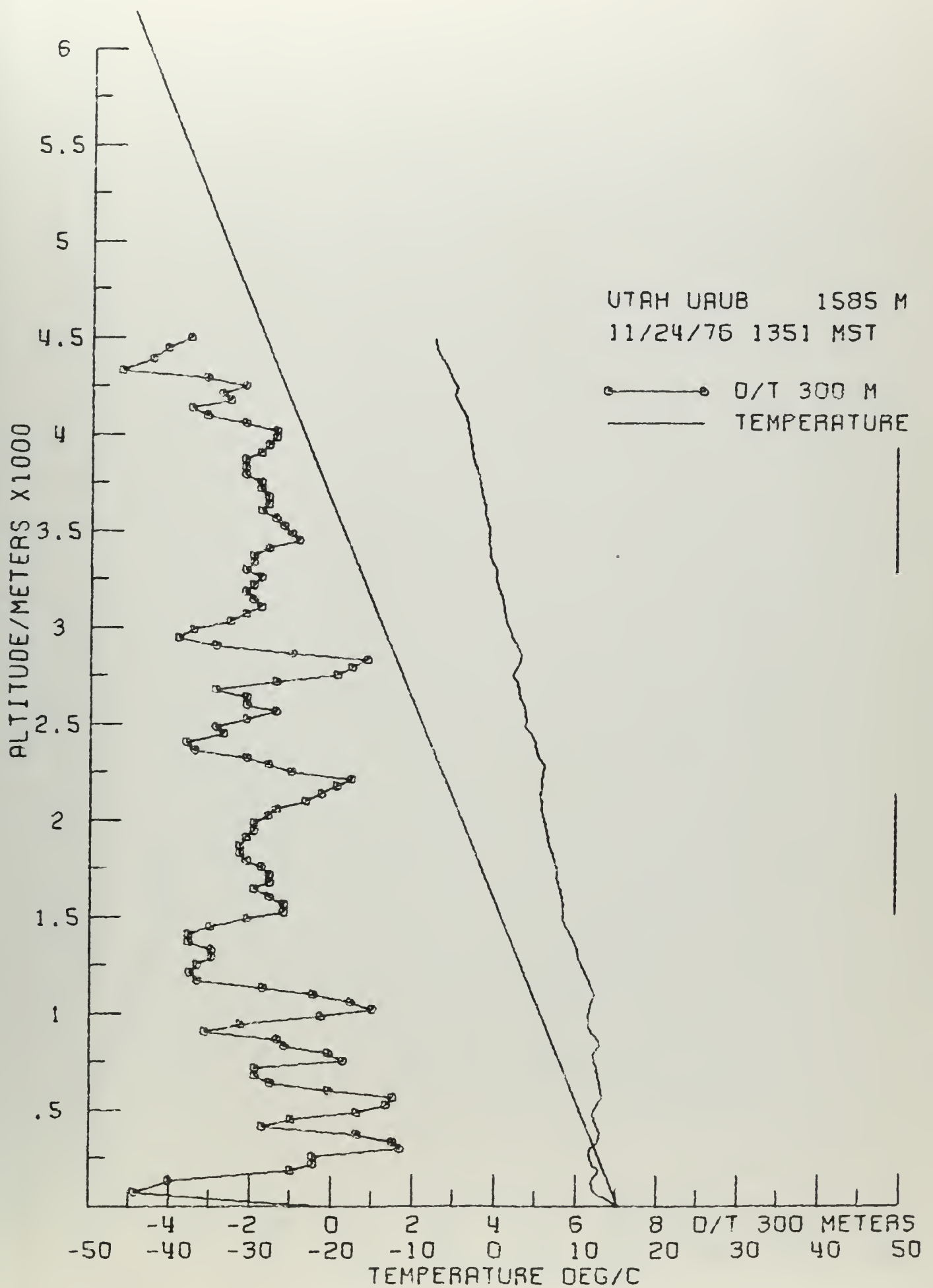






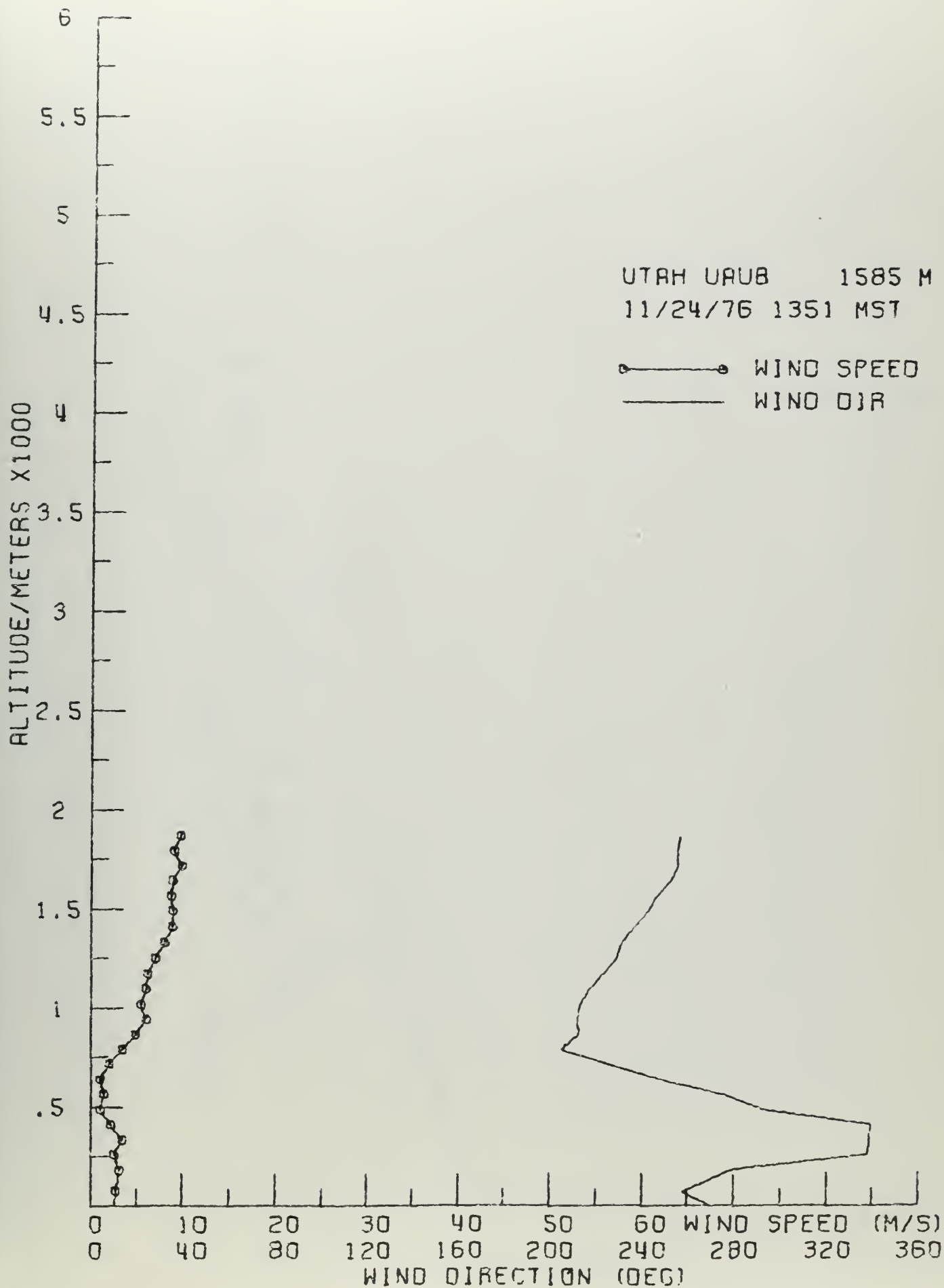




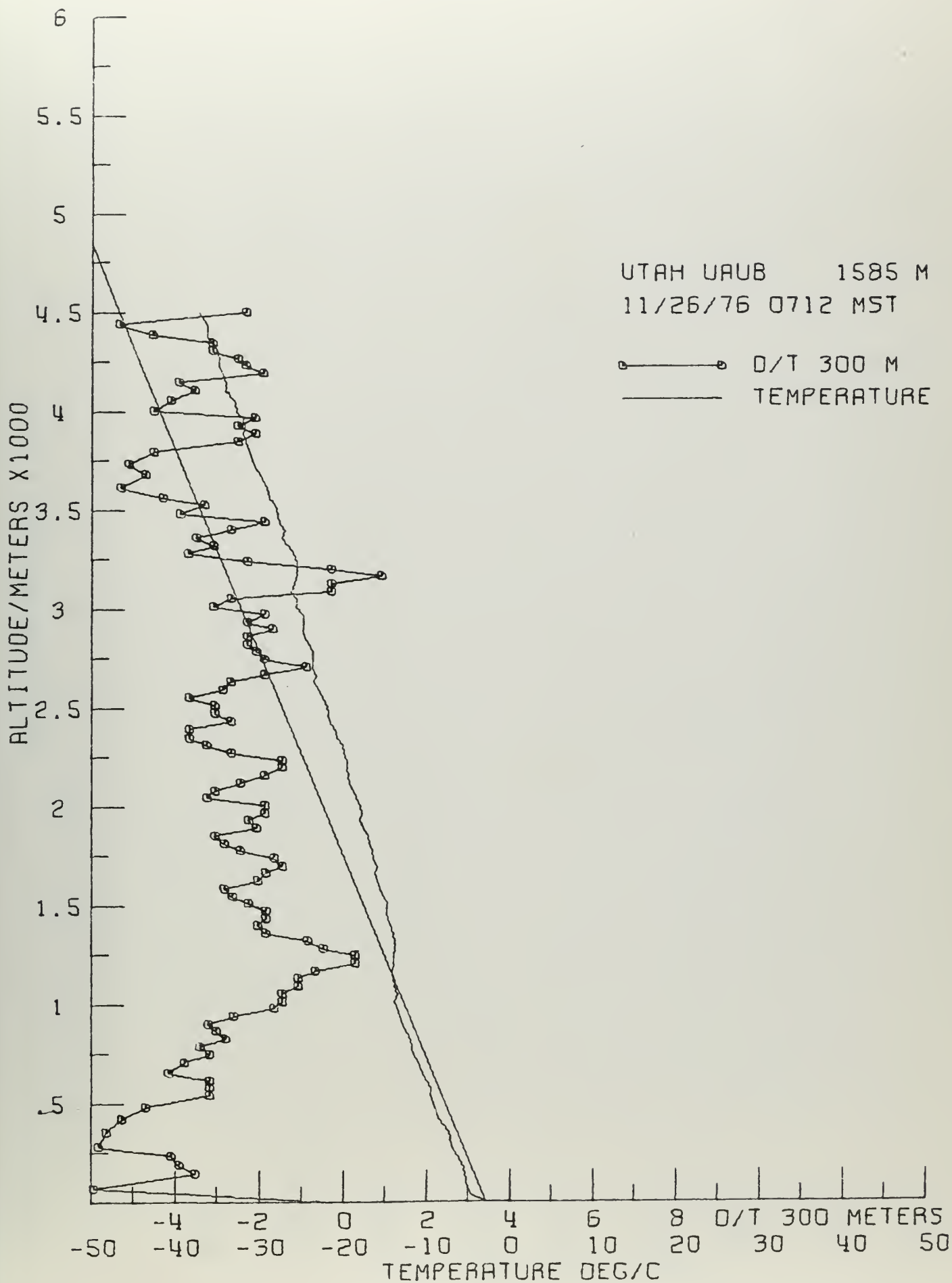




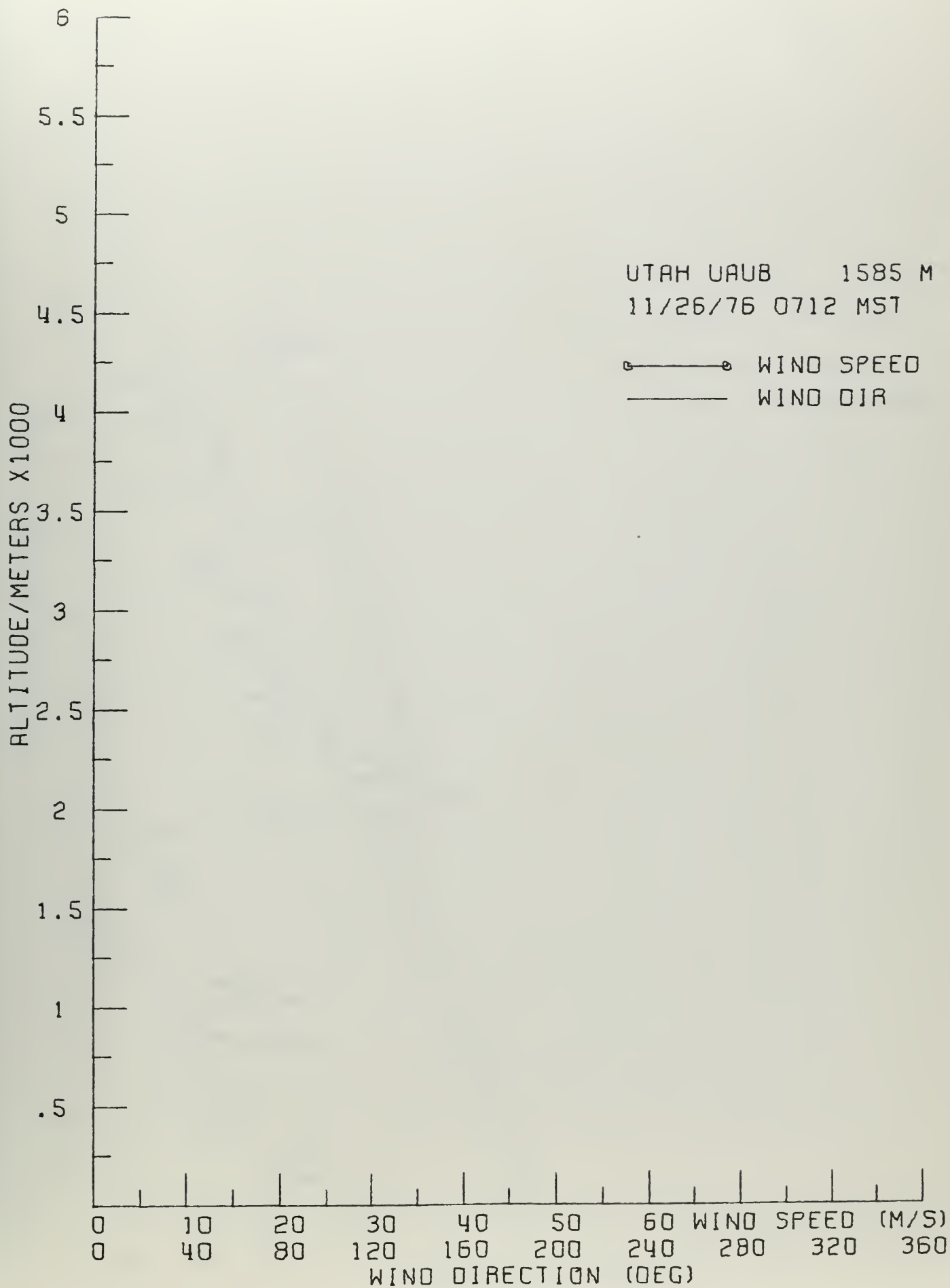






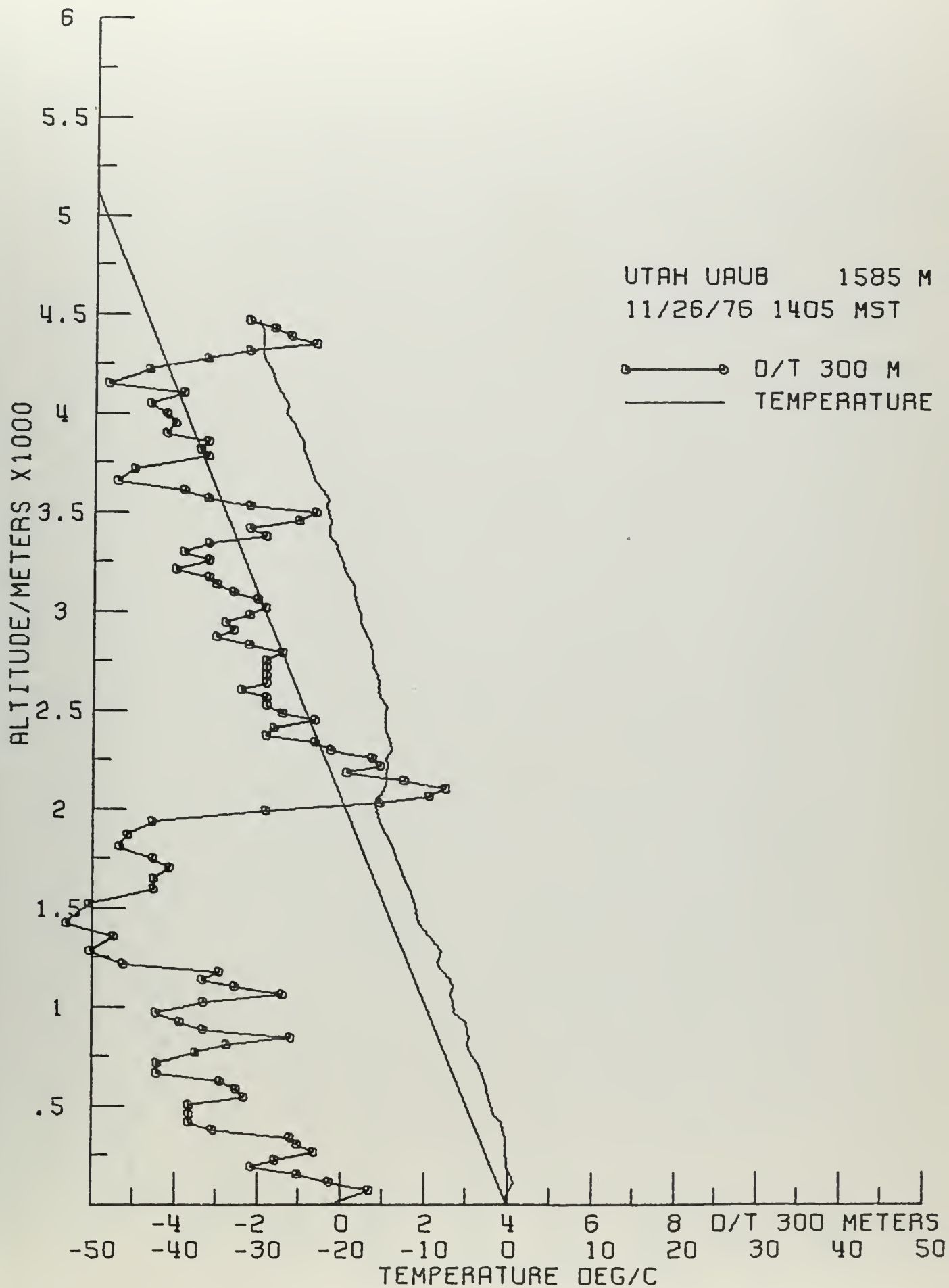




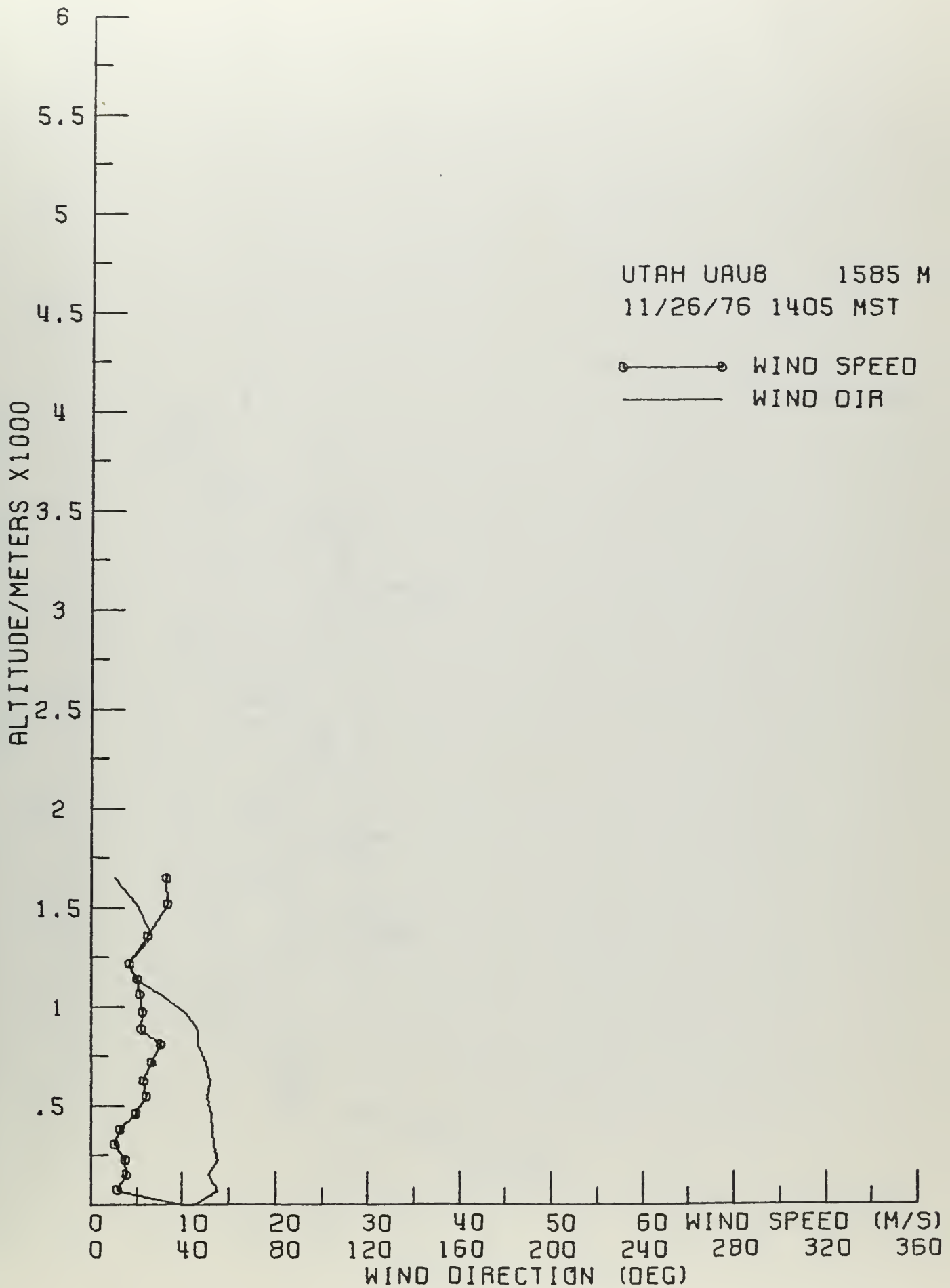




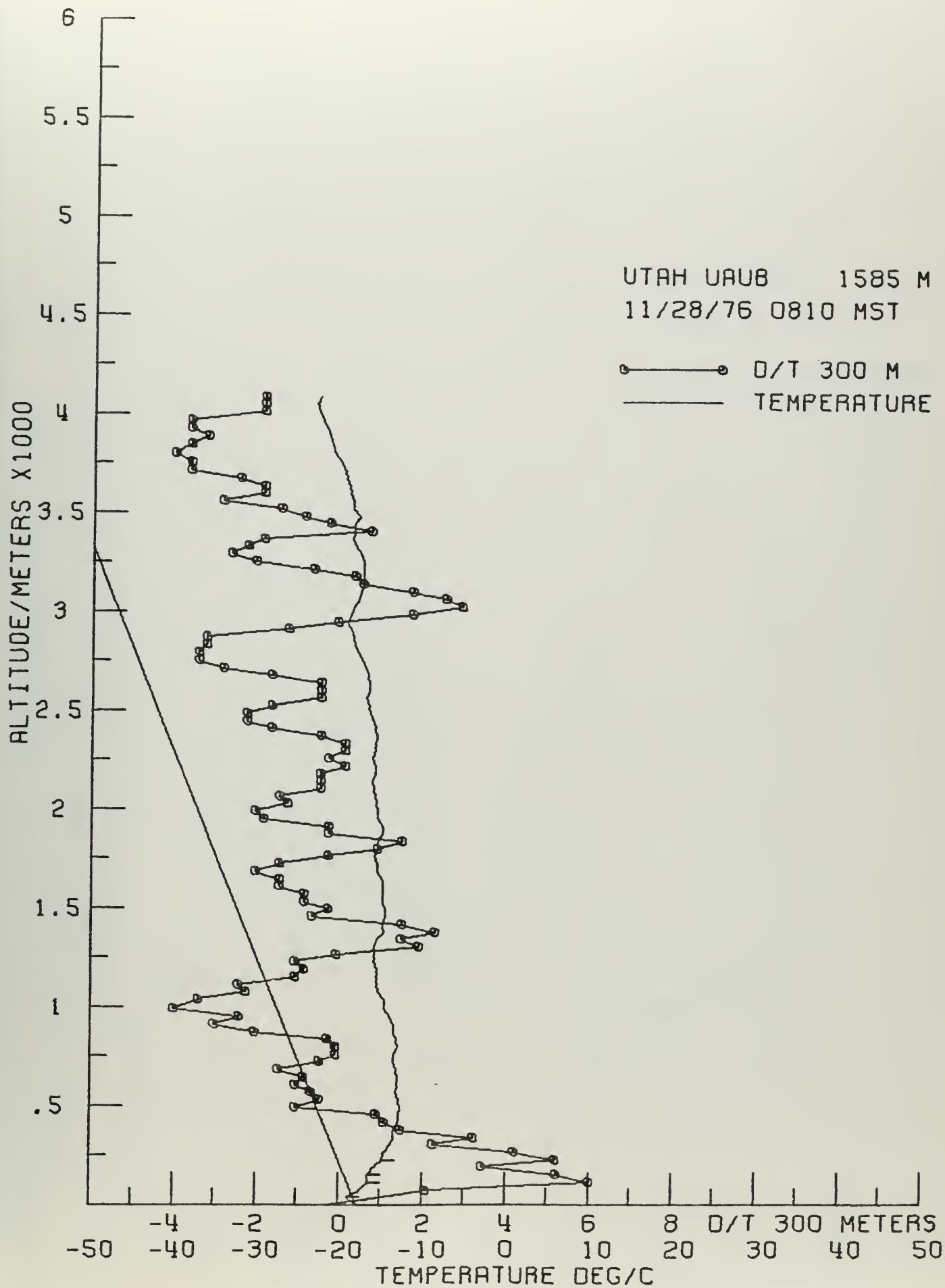




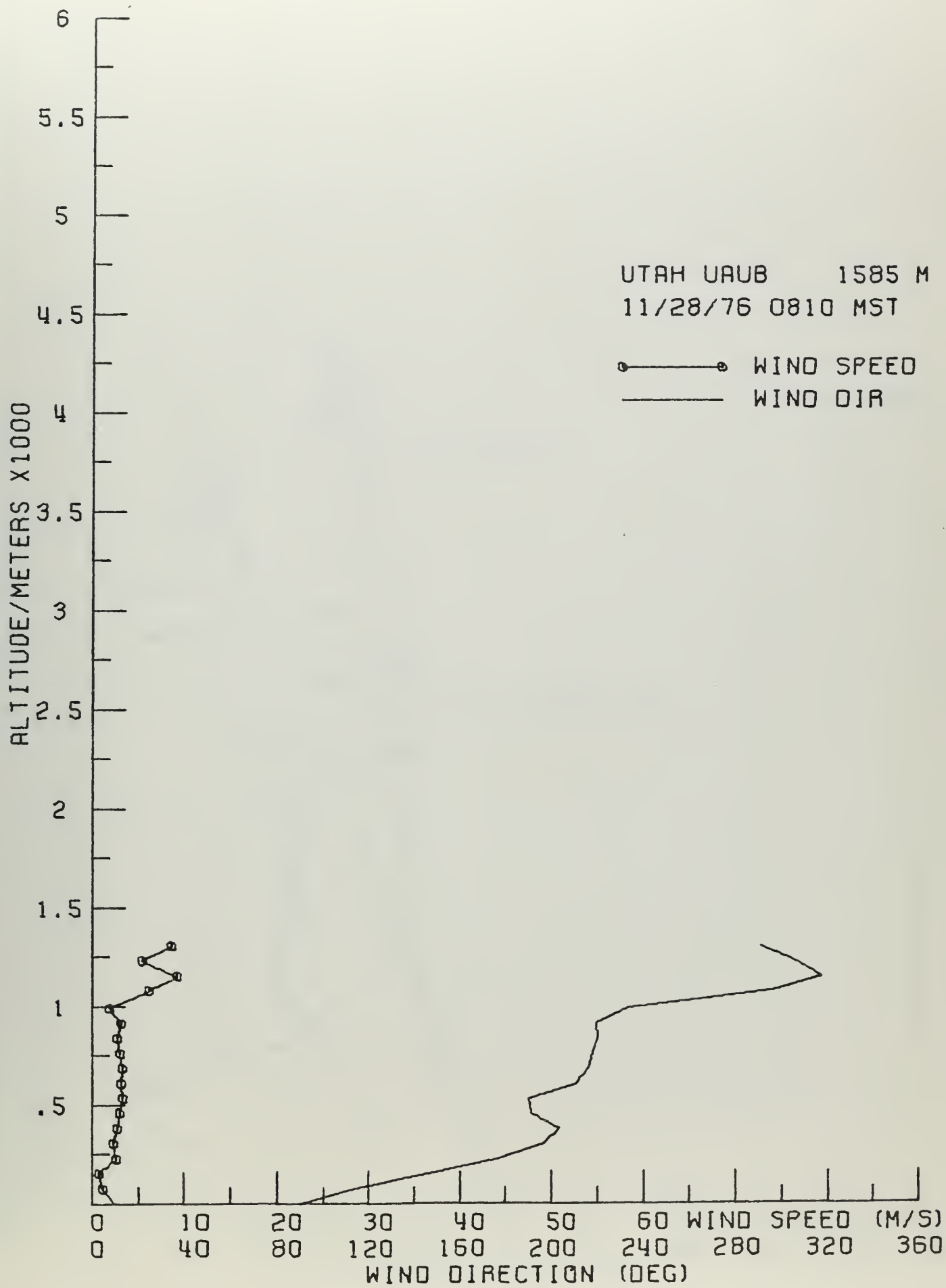






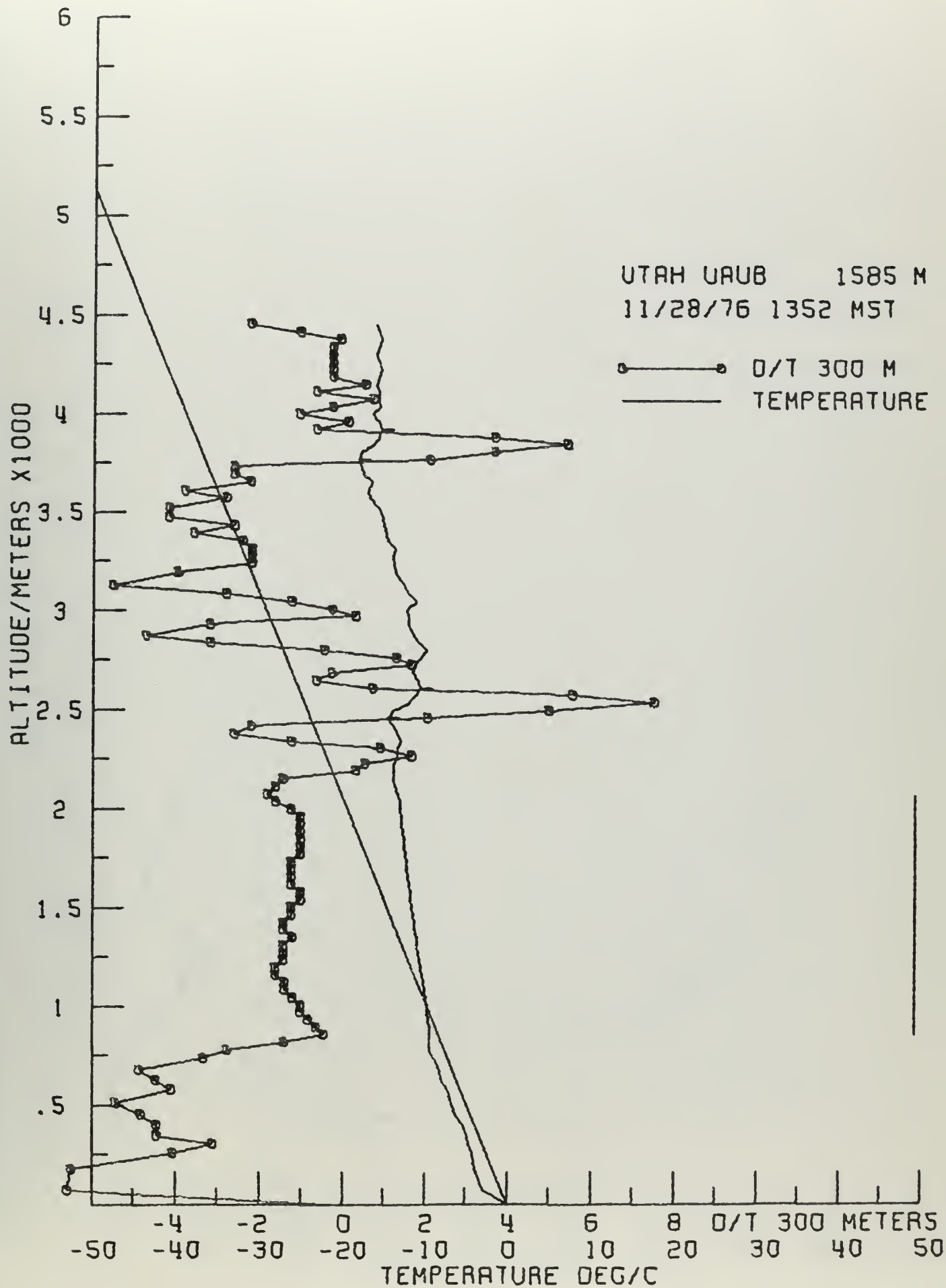




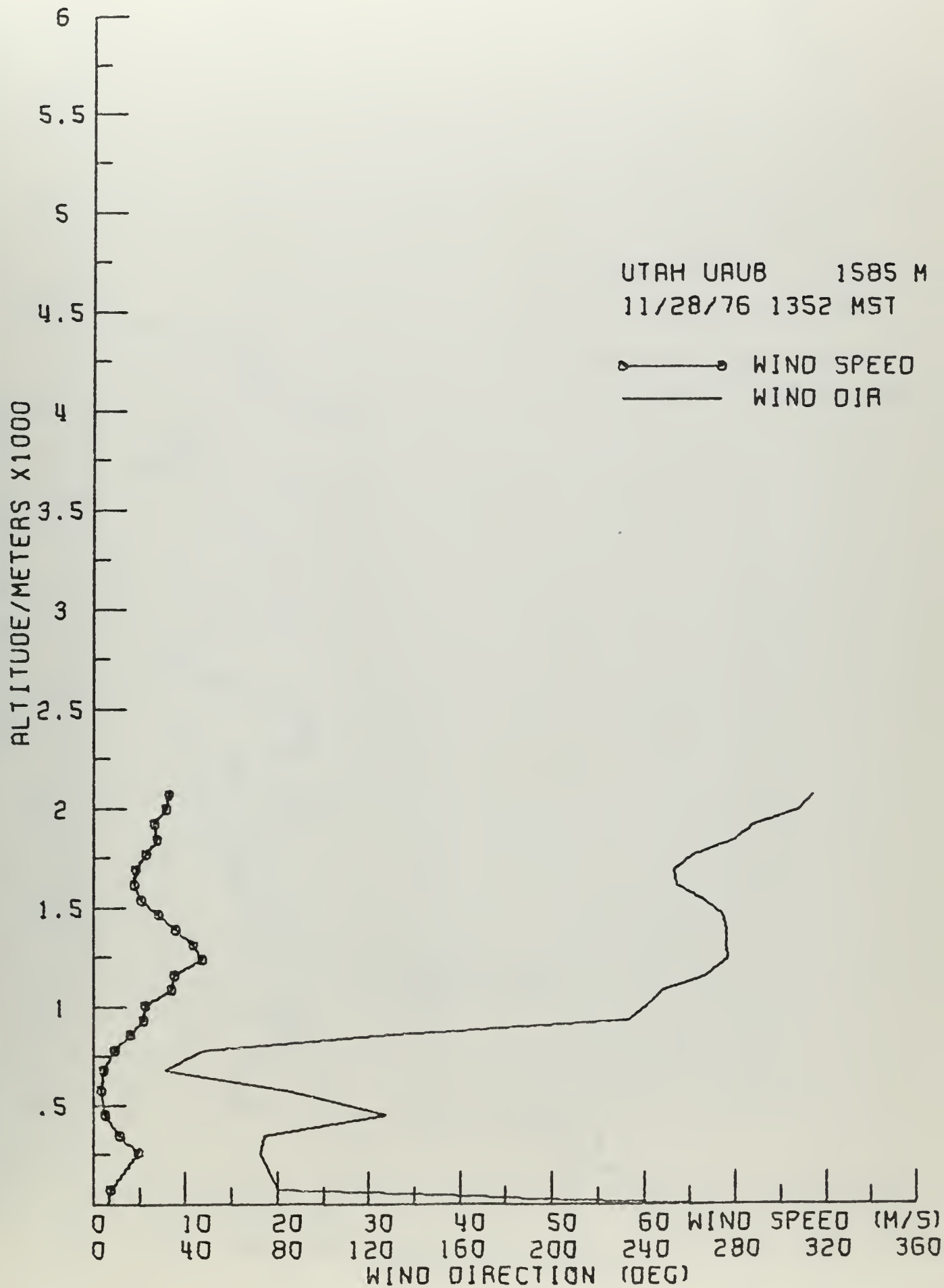




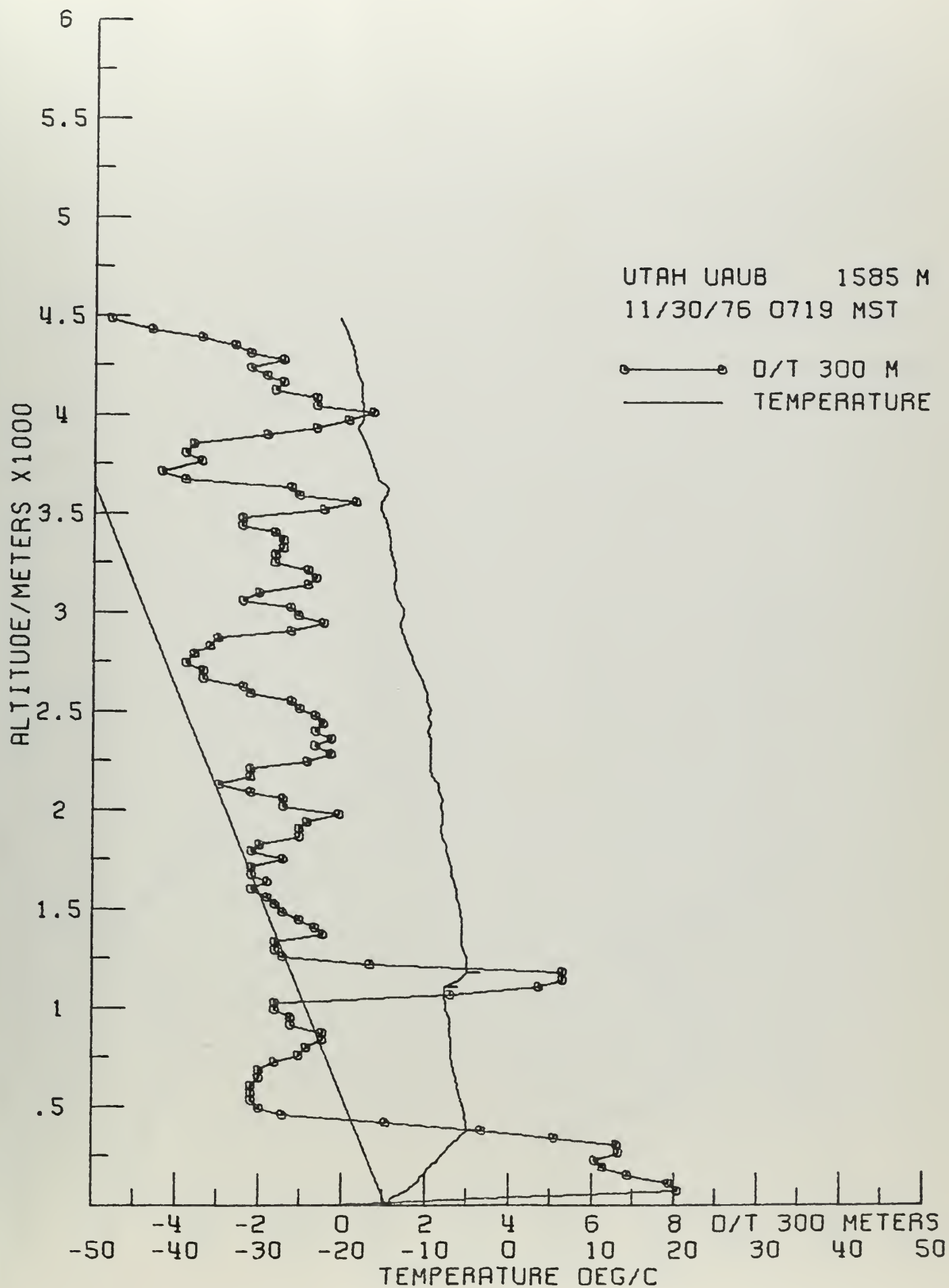






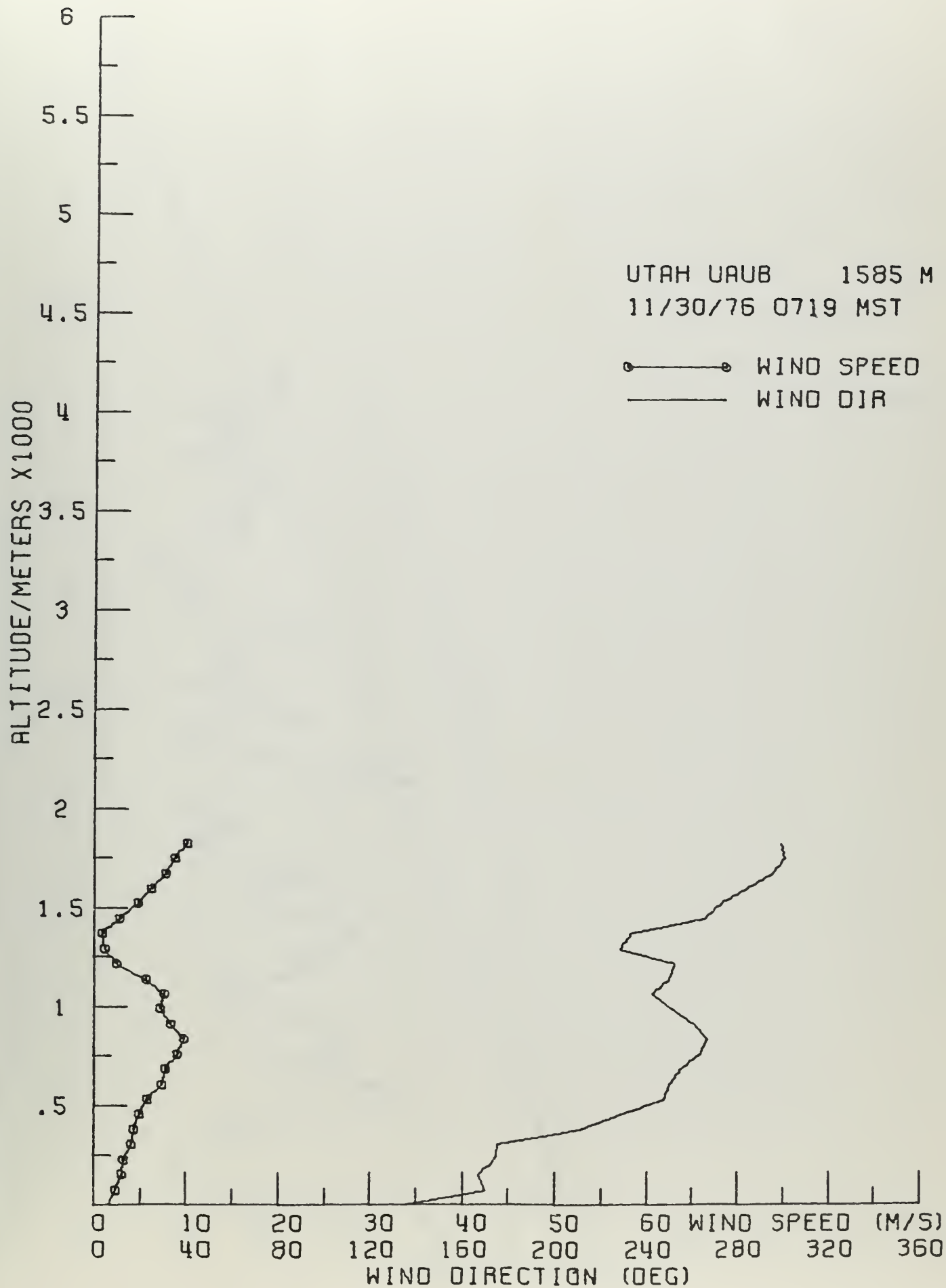




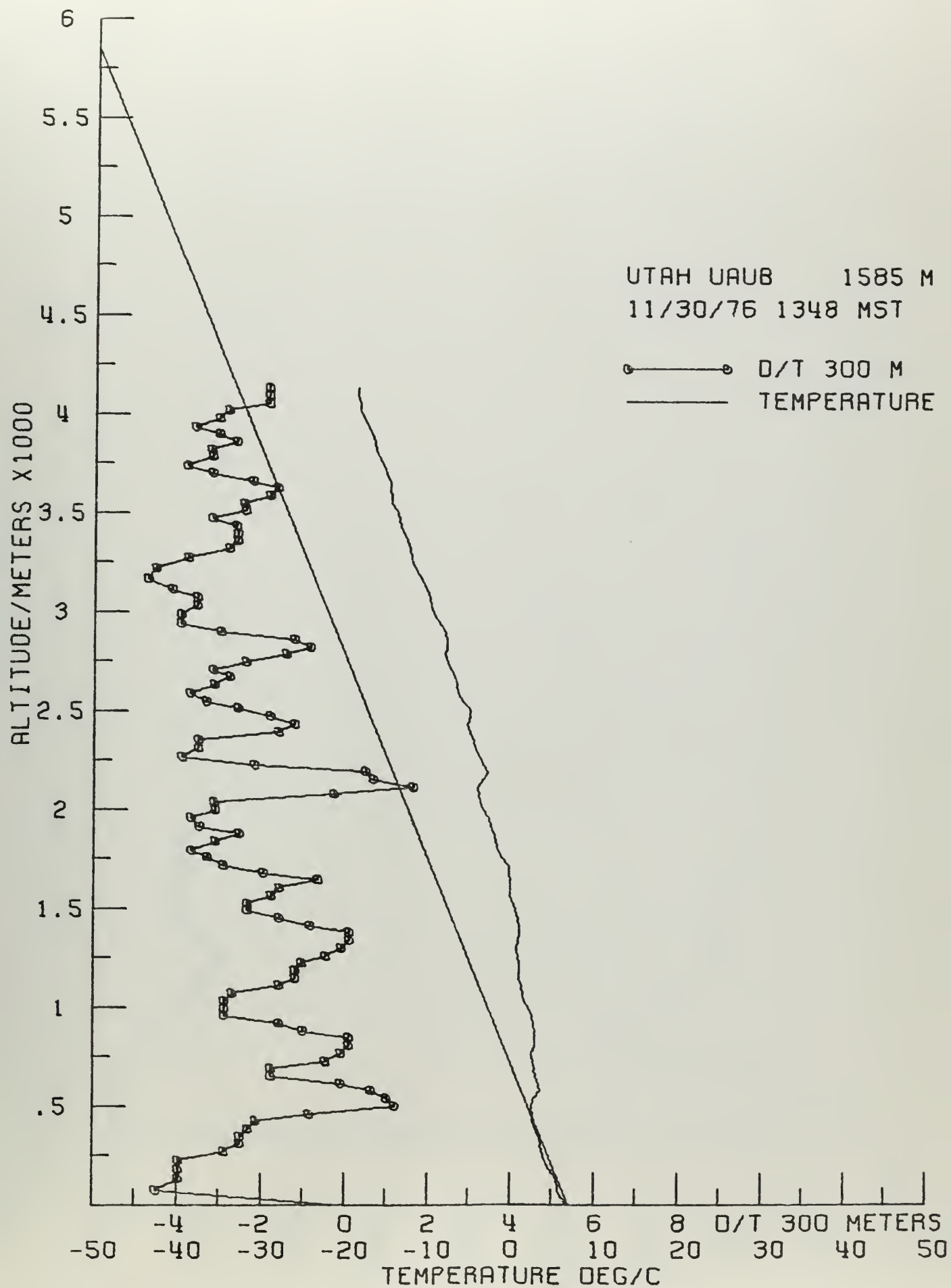




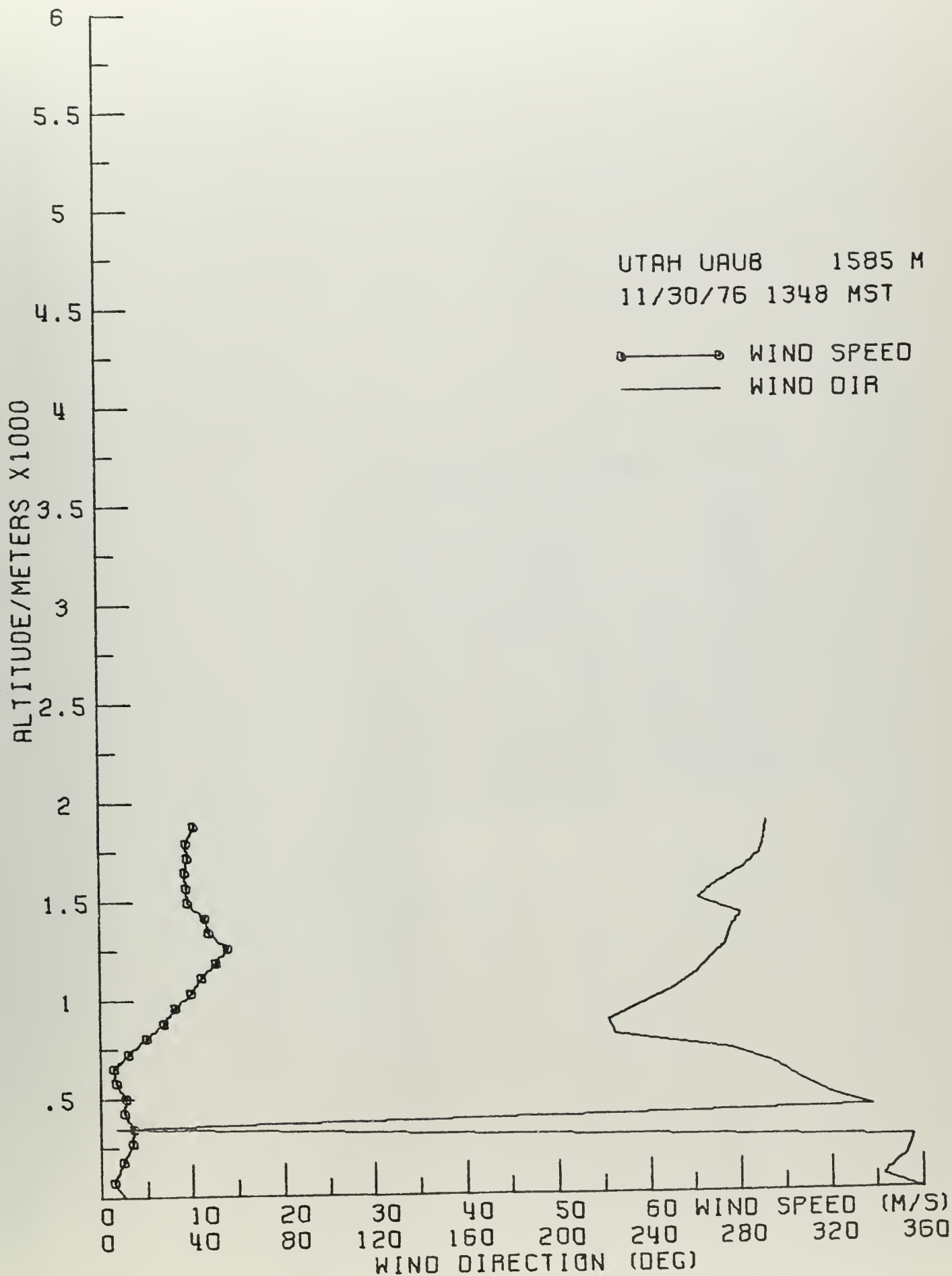














Form 1279-3  
(June 1984)

BORROW

TN 859 . U82 W44

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" " " for the pe

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U.S. G.S.